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Provisioner



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OCTOBER 17, 1953

CONVENTION REPORT ISSUE

Proceedings
of the
48th Annual Meeting
of the
American Meat Institute

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calling 5367 Meat Industry Members

who attended the forty-eighth annual meeting of the American Meat Institute at the Palmer House in Chicago, October 2 to 6. . . . and the thousands of other PROVISIONER readers who couldn't get there, but who will share in the practical values and spirit of the convention through the pages of this magazine.

It was a big meeting.

Statistically, of course, in that registration topped the 1952 high by 835 persons, but "bigness" was made manifest in more important ways than by large numbers.

Chairman H. H. Corey pushed back the horizons when he pointed out the industry's duty to see that consumers get from producers the kind of meat they want (see page 233) and the Plager brothers made a strong case for the



Veteran James R. Hills of the American Meat Institute staff typifies the annual meeting for thousands of conventioners who have hearkened to his loud but polite call to "please get into the session, gentlemen."

meat-type hog and its value to the raiser, packer and Mrs. Housewife (see page 111).

Public opinion analyst Elmo Roper (see page 259) lifted the packers' eyes to the next hill—improvement in public understanding and respect for the industry—which must be climbed from the vantage point gained after 12 years of struggle for greater product appreciation.

"There are no bounds—when research and engineering break the way" was the theme underlying Prof. George Schroepfer's account (see page 121) of promising experiments in anaerobic digestion of packinghouse waste . . . and discussion by AMIF scientists (see page 152) of worthwhile discoveries in connection with animal fats, hides, canning and rendering . . . and reports by Ralph Epstein (page 127) and Fred Homan (page 130) on new construction methods.

The "we don't talk about that" attitude was spurned by Dr. C. E. Gross of Morrell (see page 148) who urged that public education with respect to the handling of certain meat foods would help in preventing so-called "food poisoning" mishaps in which meat is sometimes blamed.

Guide posts were set up along the ever-broadening and more densely traveled road of prepackaging by AMI's George Lewis (see page 204) and a panel of retailer and

packer experts (page 208) who analyzed package size preferences, pointed out some of the advantages and pitfalls of consumer package merchandising of sausage and meat specialties and reported their own operating and selling experiences.

Package meat more effectively and economically was one of the points emphasized by exhibitors in the overflow show of supplies and equipment (see page 272) at the Palmer House, but other suppliers stressed the advantages of up-to-date processing of major products and by-products.

The employee retirement program is another of the new paths which many packers, willingly or reluctantly, must explore in the near future. Tobin experience in this area, as relayed to industry accountants by Robert N. Peck (see page 226) should prove very helpful.

Attitudes, hopes and fears that prevail in the livestock breeder and feeder today are reflected on the packer's profit and loss statement tomorrow. In this bewildering field, where the proponents of high supports and parity-at-any-price (see page 160) hold forth, packers gained new hope from the sober analyses of AMI forecaster J. Russell Ives (page 105), which pointed to a one- or two-year or even longer high level of beef processing and a slightly-higher-than-hoped-for 1953-54 volume of hogs, as well as from the optimistic view of Secretary of Agriculture Ezra T. Benson (page 264) that a new and lasting stability may be achieved in the cattle business.

Other spokesmen for the livestock end of the business also took a hopeful view of the future. Dr. Albert J. Dyer told of research aimed at cheaper and better meat (see page 199), while rancher O. W. Lynam (page 158) and marketman P. O. Wilson (page 164) urged the livestock and meat industry to do a better merchandising and advertising job. In analyzing the agricultural future as "no bed of roses nor crown of thorns," economist Thomas



"TO THOMAS E. WILSON in grateful recognition of his manifold contributions to the American meat packing industry by the board of directors of the American Meat Institute," reads the bronze plaque presented to the retired chairman of the board of Wilson & Co. at the annual dinner of the Institute. Mrs. Wilson is shown with her husband shortly after the plaque was unveiled.

Officers of the Institute

H. H. Corey, president, Geo. A. Hormel & Co., Austin, Minn., was re-elected chairman of the board of the American Meat Institute and Wesley Hardenbergh was renamed president at the annual business meeting which closed the convention. Also re-elected were Homer R. Davison and George M. Lewis as vice presidents; H. Harold Meyer, president of the H. H. Meyer Packing Co., Cincinnati, as treasurer, and Roy Stone as secretary and assistant treasurer.

New directors are: Fred Dykhuizen, president of the Dixie Packing Co., Inc., Arabi, La.; E. W. Kneip, president of E. W. Kneip, Inc., Chicago; Albert Luer, president of the Luer Packing Co., Los Angeles; Hugo Slotkin, president of Hygrade Food Products Corp., Detroit; James D. Cooney, president of Wilson & Co., Chicago, and J. B. Hawkins, general manager of Lykes Brothers, Inc., Tampa, Fla.

Cowden emphasized (see page 239) that fundamental decisions must be made by farmers and the nation with respect to price supports and the controls that will be necessary to make them work.

One of the highlights of this year's convention was the hog grading contest which followed discussion of the meat-type hog by the Plager brothers. Hundreds of packer executives tried their skill at judging the grades and back fat thicknesses of 12 porkers; while there were no perfect scores (see page 118), a number of participants showed keen judgment.

Color was added to the convention picture by the annual dinner at which the kilted Scottish Highlanders of the State University of Iowa sang, danced and played the bagpipes (see page 267). Warm hospitality was extended to industry members in the suppliers' suites on the eighth and club floors at the Palmer House.

Thousands of meat industry faces floated before the eyes of the NP cameramen during (and since) the convention. The pictures will be found throughout this issue and especially in the pages 169 through 195.

The look-ahead luncheon was another "AMI extra" at this year's meeting and educator Kenneth McFarland's smooth blend of wit and wisdom sent the 1953 conventioners on their homeward way in good spirits.

Perhaps in the minds of the returning packers there also lingered the words of chairman H. H. Corey who said of the year 1954:

"There will be work for all; there will be opportunity for all to provide nutritious meat for the people of the country and of the world; there will be opportunity for leadership in the whole livestock picture; there will be much inner satisfaction in our work; and there will be, in some degree at least, I trust, some of that rightful and proper incentive-payment known as profit."



Opening Session...

"The Outlook for Livestock and Meat Supplies for the Year Ahead" by J. Russell Ives, AMI department of marketing — "Hog and Pork Carcass Demonstration" by Carroll Plager, Geo. A. Hormel & Co.; Wilbur Plager, Iowa Swine Producers Association, and Russell Plager, John Morrell & Co.

Another Year of Large Slaughter Ahead



J. R. IVES

LET US FIRST TAKE UP the hog and pork situation, starting with a brief review of the past year. Chart 1 shows the relationship between the pig crop and hog slaughter. You may recall that the 1952 pig crop totaled about 92,000,000 head, according to the revised estimates of the USDA. This was a reduction of 10,000,000, and also 10 per cent from the crop of

the previous year. Because of this cutback in hog production, federally inspected hog slaughter for the 12 months beginning with August, 1952, totaled about 57,000,000 head, or nearly 7,000,000 less than in the previous marketing year. Total commercial hog slaughter (that is, all

slaughter except farm slaughter) also was reduced by about 7,000,000 head, or 9 per cent. Also, the greater part of this reduction, I'm sure you will recall, occurred during the last half of the marketing year—that is, in the months of February through July.

We are now going into the 1953-54 marketing season with the government pig crop report again showing a substantial decrease in hog production for 1953. On the basis of the government's estimate of an 84,000,000 pig crop this year, our best guess as to the 1953-54 slaughter is that about 52,000,000 head will be processed under federal inspection and that total commercial slaughter will be in the neighborhood of 65,500,000 head. This is a reduction of 5,000,000 head, or about 9 per cent in federally inspected slaughter. In making these estimates we have leaned in the direction of a little higher slaughter than is actually indicated by the size of the pig crop. We have done this because we think there is a good chance that farmers may actually raise a few more pigs this fall than was indicated by the government's June survey. We will know more about this when the December pig crop report is released toward the end of December.

Now the next point in the outlook for slaughter sup-

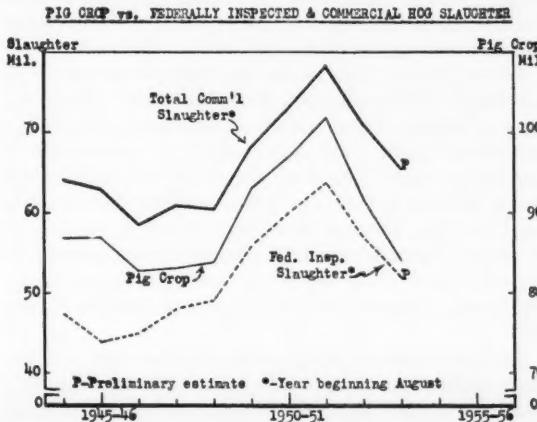


CHART 1

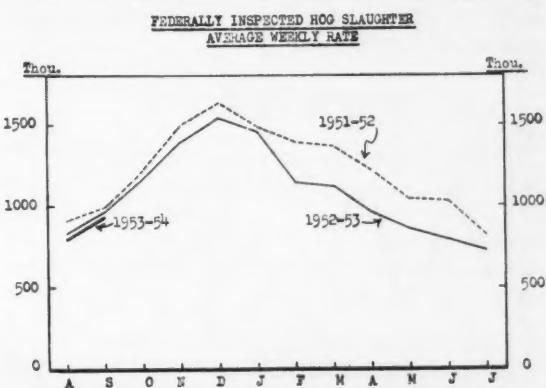


CHART 2

plies of hogs is the question of the seasonal distribution of these marketings. (Chart 2.) Some clue to this is given in the government's figures on sow farrowings by months. By and large, the spring crop followed about the same farrowing pattern as that of 1952, except that there was some tendency again this year towards early pigs. However, probably the greatest factor affecting the seasonal distribution this year compared with last, will be the relative size of the spring and fall pig crop. You may recall that the spring crop was cut 10 per cent but the preliminary indications called for only a 5 per cent cut in the fall crop. And, as I mentioned before, we have a sneaking suspicion that the final estimate of the fall crop may be down even less than 5 per cent.

In addition to time of farrowing, the rate at which hogs mature and the weights at which they are marketed, also have a distinct bearing on the seasonal slaughter pattern. This year I think we have seen a good example of how this can affect marketings. As you know, average weights at two months have been exceptionally light, running 10 to 12 lbs. under a year ago. From this it appears that many

TABLE 2: SEASONAL DISTRIBUTION OF PIG CROP AND HOG SLAUGHTER

Item	Million Head			1953-54	
	1953-54	1952-53	1951-52	1952-53	1951-52
Pig Crop					
Spring: Dec.-Feb. ¹	11.9	12.9	13.0	-8%	-8%
Mar.-May ²	38.8	43.5	49.1	-11	-21
Total	50.7	56.4	62.1	-19	-18
Fall:					
June-Aug.	17.9	18.7			
Sept.-Nov.	17.5	21.1			
Total	33.6*	35.4	39.8	-5	-16
Total crop	84.3*	91.8	101.9	-8	-17
Fed. Insp. Slaughter					
Aug.-Sept. (2)	7.0*	7.9	0.6	-4	-11
Oct.-Dec. (3)	16.5*	18.5	19.1	-11	-14
Jan.-Mar. (3)	14.1*	15.8	18.4	-11	-23
Apr.-July (4)	14.0*	14.8	17.7	-5	-21
Market year total	52.0*	57.0	63.8	-9	-18

*Break-down by months estimated from monthly sow-farrowing data.

¹Preliminary estimates.

farmers have been hurrying hogs to market in order to beat the break in prices which normally takes place this time of year.

It seems to us that this early run has been, to some extent, at least, at the expense of supplies later in the fall. So long as hog prices remain at what seems to be a relatively high level, farmers may continue to consider it good business to market hogs at comparatively light weights. However, with the relatively favorable hog-corn price ratio that seems likely to exist this fall and winter, the tendency later might very well be to feed hogs to somewhat heavier weights again.

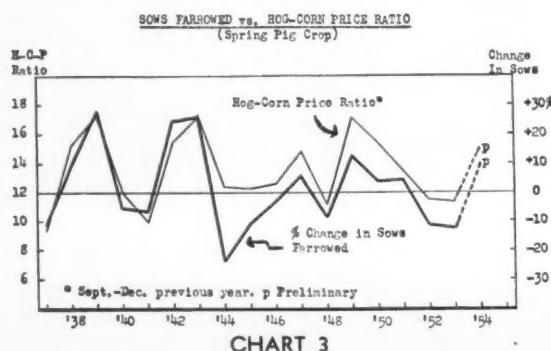


CHART 3

1953 Spring Pig Crop - % Change from 1952



Considering all of these factors as best we could, we have come up with the seasonal distribution in hog slaughter shown in Table 2. You will note that in general we expect a sharper reduction in hog supplies during the late fall and early winter period than during the spring and summer. This is indicated in our estimates of an 11 per cent cut in slaughter for the October-December and January-March quarters but only a 5 per cent reduction for April-July.

Also, and here we have our neck way out, we think it is entirely within the realm of possibility that we will see some increase in hog marketings over a year earlier by the late summer of next year, i.e., August and September, 1954. This conjecture is based on the possibility that next year's spring pig crop will be larger than that of 1953. This prediction is based upon the analysis as shown in Chart 3 which compares annual changes in sows farrowed during the spring with the hog-corn price ratio during the breeding season. We don't know exactly what the ratio will be this fall, of course, but if it is somewhere around 15.0, as it has been in recent weeks, we can logically expect an increase of perhaps 8 to 10 per cent in next spring's crop.

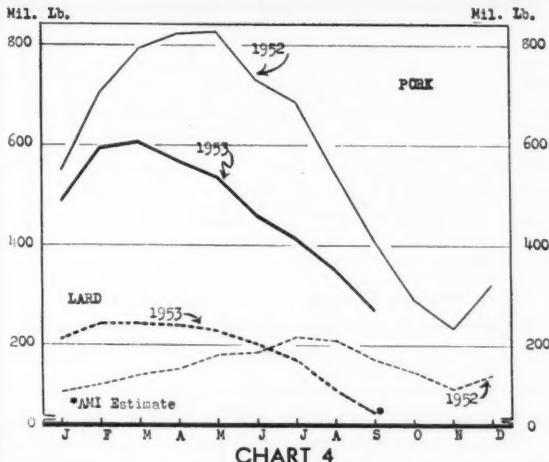
In addition to these statistical indications, our general observations from talking with a number of hog producers is that interest in hog production has been greatly stimulated by the recent favorable prices. Incidentally, our figure of a possible 10 per cent increase is conservative compared with some guesses we've seen which go as high as 20 per cent. I might say in passing that we also have noted a considerable pick-up in farmer interest in the so-called "meat type" hog.

Before leaving this section on hog production, it is worthwhile noting the wide variation in this year's pig crop as between regions. As the map shows, the smallest reductions in the 1953 spring pig crop (which now is moving to market) were in the Eastern Corn Belt and South Atlantic states, i.e., -4 per cent. In states outside the Corn Belt, however, there were decreases ranging up to 40 per cent and more in some states. For example, the cutback reported for the South Central states of Texas, Oklahoma, Arkansas and Louisiana amounted to 39 per cent.

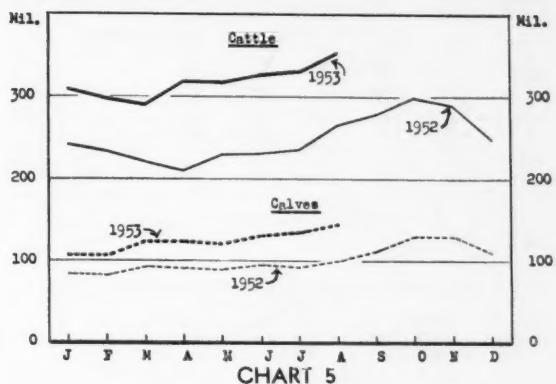
This same pattern applies to the 1953 fall crop, with the government's report on breeding intentions showing little or no change from last year in the Corn Belt but substantial reductions in other areas.

No report on the hog situation would be complete with-

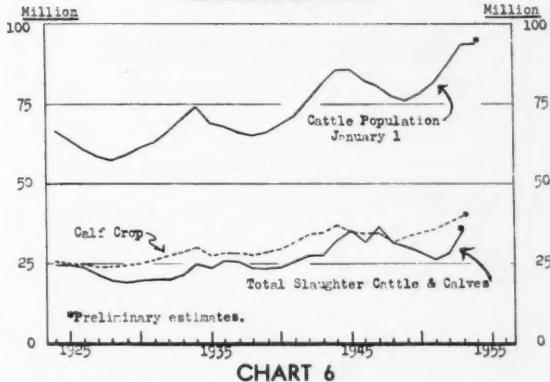
U.S. STORAGE HOLDINGS OF PORK AND LARD, 1952-53
(First of the Month)



FEDERALLY INSPECTED SLAUGHTER OF CATTLE & CALVES
AVERAGE WEEKLY RATE



INCREASED CATTLE SLAUGHTER HAS ABOUT HALTED EXPANSION
IN U.S. CATTLE POPULATION



out our taking some note of the present low stocks of pork and lard. As Chart 4 shows, inventories of both pork and lard have decreased sharply during the past several months. As of September 1, storage holdings of pork totaled 268,000,000 pounds, which was about 1/3 less than on that date for each of the preceding two years. Lard inventories on September 1 amounted to only 56,000,000 pounds, which is a decrease of 67 per cent from last year.

THE CATTLE AND BEEF SITUATION: Now let us turn to the cattle and beef situation. Of course, it is no news to you folks here that there has been a sharp expansion in marketings of cattle and calves thus far in 1953. As Chart 5 shows, slaughter supplies have exceeded a year ago by a substantial margin in each month of the year. Through September federally inspected slaughter of cattle and calves has exceeded a year ago by about one-third or 33 per cent.

Figures for the eight months through August show that all classes of cattle have been larger than last year but that the increase has been greater for steers and heifers than for cows.

Although cow slaughter has shown a 29 per cent gain over last year, our calculations indicate that this increase has not been sufficient to actually halt some further expansion in breeding stock on farms and ranches during the current year. On the other hand, the increased slaughter of steers and heifers appears sufficient to lower the inventory of these kinds of cattle next January 1.

Projecting these figures for the balance of the year, as we have done in Table 6, it appears that the total slaughter of cattle and calves in 1953 will approximate 35,500,000 head. This will be the largest annual slaughter since 1947 when the total amounted to a little over 36,000,000 head.

TABLE 6: BALANCE SHEET OF U.S. CATTLE NUMBERS, 1947-54
Million Head

	1954	1953	1952	1951	1950	1949	1948	1947
Item	Pos'tl.	Prelim.						
Jan. 1 No.	94.0	93.7	87.8	82.0	78.0	76.8	77.2	80.6
Calf crop	40.7	40.0	37.9	35.7	34.8	33.7	33.1	34.7
Imports	.3	.3	.2	.2	.5	.4	.5	1
Total	135.0	134.0	125.9	117.9	113.3	110.9	110.8	115.3
Slaughter	37.5	35.5	28.0	26.0	29.1	30.2	31.6	36.1
Other dis.	4.5	4.5	4.2	4.1	2.2	2.7	2.4	2.0
Dec. 31 No.	93.0	94.0	93.7	87.8	82.0	78.0	76.8	77.2

¹Less than 500,000 head.

However, as Chart 6 shows, an important difference between 1953 and 1947 is that in the earlier year the large slaughter was accompanied by a 3,000,000 head reduction in the country's cattle population—from 80,600,000 on January 1 to 77,200,000 at the end of the year. Cattle numbers in the beginning of the current year were 13,000,000 head larger than on January 1, 1947, thus making it possible for us to slaughter as many as 35,500,000 head with little or no change in cattle numbers from the beginning to the end of the year.

To put it another way, it appears that this year's total slaughter will approximately equal the net addition of young stock to our cattle population so that cattle numbers on January 1, 1954, will not differ greatly from the 93,700,000 estimated by the USDA to have been on farms at the beginning of the current year.

We have elected not to get into any statistical arguments as to what the exact cattle count for next January 1 may turn out to be. Rather, we think it sufficient to conclude that we will continue to have a very large "beef producing plant" in 1954.

As we see it, the real question for next year revolves around the so-called cattle cycle. In other words, are we at the point in the cycle when producers will cut the size of their herds, as they have done in similar previous periods, or will our cattle population be maintained at around the 94,000,000 head level for another year or two?

Actually, I think we will have to admit that we have very little information to draw upon in seeking an answer

BEEF STEER SALES AT 3 MARKETS

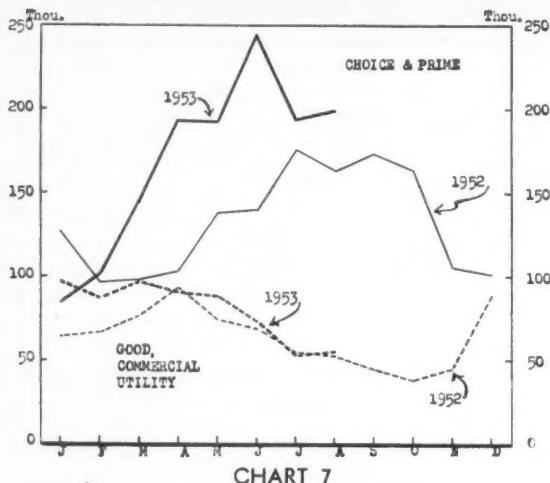


CHART 7

SHIPMENTS OF FEEDER CATTLE FROM EIGHT MARKETS AND AVERAGE STEER COST AT KANSAS CITY, JULY-DEC. 1952-53

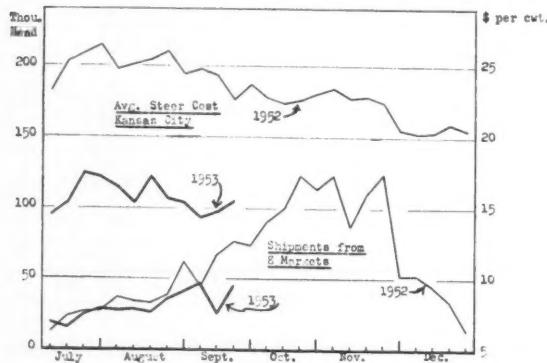


CHART 8

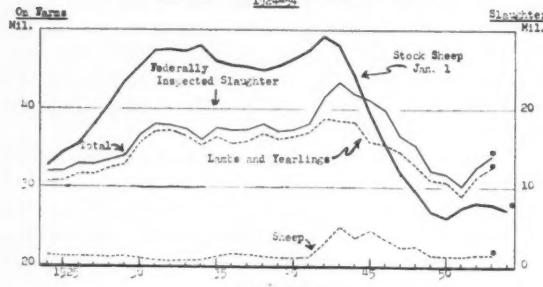
STOCK SHEEP AND LAMBS ON FARMS AND RANCHES, JANUARY 1
FEDERALLY INSPECTED SLAUGHTER OF SHEEP AND LAMBS
1952-53

CHART 9

to this question. Some of the factors which were important causes of the down-turn in cattle numbers in past periods do not appear as important now as they were then. For example, the 1934 drought certainly had a lot to do with the 2,000,000 head cutback in total numbers during that year. And in 1945 genuine fears of a severe post-war recession are credited by many with having an important influence on cattle marketings in that year.

While we have had a taste of both of these weather and economic factors in the current year (and cattle numbers probably will be curtailed in some areas), market-

U.S. PER CAPITA BEEF AND PORK CONSUMPTION, 1930-53

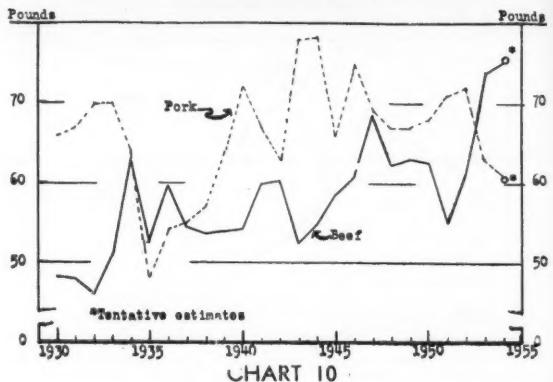


CHART 10

ings in total have not yet reached liquidation proportions.

Thus, it seems to us that, barring a serious wide-spread drought or a general economic recession in 1954, the cattle population seems closer to being in balance with prevailing economic conditions than in any other past period. One factor, which is impossible to measure, but one which seems to favor some further increase in slaughter (and therefore a moderate reduction in cattle numbers) during the coming year, is the sharply reduced price level for cattle. With cattle prices now averaging below 80 per cent of parity, compared with 125 per cent last summer and 150 per cent two years ago, it seems reasonable that some high-cost producers will decide to get out of the cattle business during the next 12 months. For this reason we think that it is a little more likely that slaughter will show some further increase rather than a decrease next year. At the moment, our best guess is that slaughter of cattle and calves in 1954 will total about 37,500,000 head. However, you'll note that even with this increase of 2,000,000 head, no material reduction in cattle numbers is called for.

Of considerable importance to all segments of the meat industry is the question of what's likely to develop in the cattle feeding situation during the 1953-54 season. It is well known that marketings of fed cattle have been very large during the present year. As Chart 7 shows, supplies of choice and prime steers at Chicago, Omaha and Sioux City through August have run well ahead of a year ago—the actual increase amounts to about 30 per cent. This is a little greater increase than the 25 per cent gain in the number of cattle reported to have been on feed in the Corn Belt as of January 1. The price decline which accompanied these large marketings this past spring amounted to about \$11.00 per cwt., or 33 per cent under last year. This drop in prices for fat cattle resulted in feeding operations being mostly in the red. Figures developed by the USDA show that the gross feeding margin for the 1952-53 feeding season on choice yearling steers amounted to a loss of about \$24.50 per head. This compares with a gross profit of about \$21.50 per head in 1951-52 and about \$83.00 per head in the year before that. It is little wonder that cattle feeders were very disappointed in their feeding results for the past season.

Turning to what may happen this fall, marketings of grass cattle thus far this season have been smaller than was generally predicted earlier in the year. Estimates for seven major cattle markets for the period July through

FEED UTILIZATION VS. LIVESTOCK TO BE FED

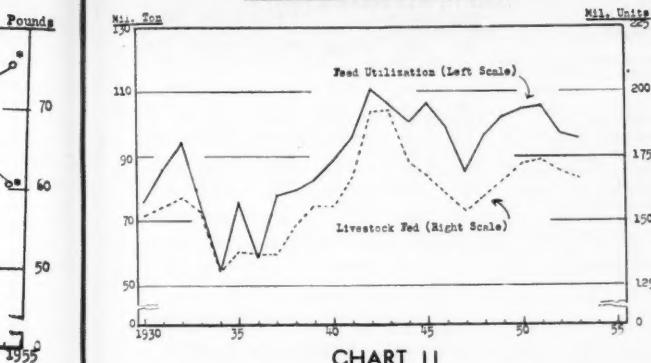


CHART 11

September 19 show these marketings to have been 21 per cent smaller than a year ago. At the same time, purchases of feeder cattle by Corn Belt farmers also have been running well under last year, even though prices for feeders have averaged roughly one-third lower than a year ago and about 50 per cent under prices which prevailed this time two years ago.

Thus far it appears that cattle feeders are taking a very cautious attitude toward feeding this season. But, with the bigger part of the market movement still ahead of us, and with abundant feed supplies in the Corn Belt, it is our guess that when the figures are all in, the reduction in the total number of cattle to be fed this winter will not be as great as it now may appear.

In general this means that we expected a fairly large supply of grain fed cattle to be marketed in 1954, but that the supply will not be as burdensome as it was during the past year. At the same time we may look for larger marketings of cows and the lower grades of cattle. Also, we expect calf marketings to continue at a relatively high level in the year ahead.

THE SHEEP AND LAMB SITUATION: Now a brief word about the sheep situation. Slaughter of sheep and lambs under federal inspection through September has totaled about 10,000,000 head, which is a 14 per cent increase over a year ago. We expect the year's total to amount to a little over 14,000,000 head, which will be 1,500,000 more than last year. A slaughter of this size probably will result in some further cutback in the country's sheep population on January 1, 1954.

Although better than cattle, returns from lamb feeding during the past season were not particularly favorable. As a result, lamb feeders also have been very cautious so far this fall and prospects are that there will be a smaller volume of lambs fed this season than last. During July and August shipments of feeder lambs to nine Corn Belt states were nearly 40 per cent smaller than a year ago. However, lamb trading became somewhat more active during late September, at prices averaging around \$6.00 per cwt. lower than last year.

Because of our sharply curtailed sheep population, the slaughter supply of lambs for 1954 necessarily will continue at the reduced level of the past several years. The actual volume marketed for slaughter will depend upon whether producers decide to restock flocks. If sheep numbers increase moderately in 1954, as we have assumed, slaughter for the year probably will be somewhat smaller than the approximately 14,000,000 expected to be slaughtered under federal inspection during the 1953 year.

TABLE 1: U.S. PIG CROP AND HOG SLAUGHTER, 1944-53

Year	Pig Crop			Slaughter ^a		
	Spring	Fall	Total	Fed.	Other	Total
	(Million Head)			Com.	Com.	Com.
1944-45	55.8	30.9	86.7	47.4	16.8	64.2
1945-46	52.2	34.6	86.8	43.8	19.1	62.9
1946-47	52.2	30.5	82.7	44.7	13.8	58.5
1947-48	52.2	31.1	83.3	48.1	12.9	61.0
1948-49	50.5	33.3	83.8	49.2	11.2	60.4
1949-50	57.0	36.2	93.2	55.9	12.4	68.3
1950-51	57.9	39.4	97.3	40.1	13.2	73.3
1951-52	62.0	39.8	101.8	43.8	14.9	78.3
1952-53	56.4	35.4	91.7	57.0	14.2	71.2
1953-54	50.7	33.5p	84.2	52.0p	13.5p	65.5p
Change from prev. yr.	-10%	-5%	-8%	-9%	-5%	-7%

p—Preliminary estimate. *—Year beginning August.

TABLE 3: FACTORS ASSOCIATED WITH CHANGES IN U.S. HOG PRODUCTION

Years	Sows Farrowed (Million Head)	Hog-Corn Prices	Hog Prices	Corn Crop
	Spring	Fall	Spring	Billion Bushels
1944	9.2	4.9	12.5	\$13.10
1945	8.3	5.4	12.3	14.00
1946	8.1	4.7	12.7	17.50
1947	8.5	8.9	14.8	24.10
1948	7.8	5.1	11.3	23.10
1949	8.8	5.6	17.1	18.10
1950	9.2	5.9	15.4	18.00
1951	9.6	6.0	13.5	20.24
1952	8.5	5.3	11.5	17.80
1953	7.4	5.1*	11.3	21.45 ²
1954	8.2p	14-15 ¹		3.2 ²

*Preliminary. ¹Tentative estimate. ²Average for 8 months.

TABLE 4: PORK AND LARD INVENTORIES — U.S. TOTAL AND AMI MEMBERS

Item	1953	1952	1951	Per Cent Change From 1952	Per Cent Change From 1951
Total Storage Holdings					
Sept. 1					
Dry salt	28	40	52	-30%	-46%
Sweet pickle	89	127	144	-30	-38
Frozen	151	241	205	-37	-26
Total pork	268	408	401	-34	-33
Lard & RPF	65*	168	72	-61	-10
Stocks of AMI Members					
Sept. 12					
Hams	42.3	46.2	53.9	-8	-22
Picnics	10.9	17.6	12.5	-38	-13
Bellies, S.P.	42.1	80.4	96.0	-48	-56
D.S. meats	19.5	33.9	48.9	-42	-60
Other cured	8.7	16.4	13.3	-47	-35
Loins, shoulders, etc.	8.7	31.8	13.0	-48	+26
Other fresh	16.5	22.6	24.8	-27	-33
Total pork	156.4	248.9	262.4	-37	-40
Lard & RPF	33.5	85.4	43.4	-61	-23

Source: USDA, Department of Commerce and American Meat Institute.

*AMI Estimate.

TABLE 5: SLAUGHTER BY CLASSES, JANUARY-AUGUST, 1951-53

Item	1000 Head			1953 Change From 1952	
	1953	1952	1951	1952	1951
Cattle Slaughter					
Fed. Insp.	6,439	4,739	4,295	+36%	+50%
Steers	1,249	866	813	+44	+54
Heifers	2,902	2,249	2,252	+29	+29
Cows	350	303	303	+16	+16
Total	10,940	8,157	7,663	+34	+43
Non-Fed. Insp.	3,800*	2,987	2,899	+27	+31
Total Cattle	14,740	11,144	10,562	+32	+40
Calf Slaughter					
Fed. Insp.	4,259	3,163	3,311	+35	+29
Non-Fed. Insp.	2,890*	2,280	2,250	+27	+28
Total	7,149	5,443	5,561	+31	+29
Total Cattle & Calves	21,889	16,587	16,123	+32	+36

*Includes estimates for August.

tered under federal inspection during the 1953 year.

TOTAL MEAT SUPPLIES FOR 1954: Assuming that our analyses of the cattle, hog and lamb situation for 1954 are somewhere near right, the anticipated slaughter of livestock will yield approximately 24,800,000,000 lbs. of meat. This represents a small gain in output of beef and veal over 1953, about the same pork and less lamb.

Meanwhile, the country's human population continues

TABLE 7: SPECIFIED FACTORS RELATIVE TO CATTLE FEEDING SITUATION

Item	1953	1952	1951	Change From	
				1952	1951
Cattle on Feed Jan. 1 (Mill.)					
Corn Belt	4.5	3.6	3.5	+25%	+29%
U.S. total	5.8	5.0	4.6	+16	+26
Jan.-June ship. to C.B. (Thous.)	907	953	869	-5	+4
Jan.-Aug. sales 3 markets (Mill.)					
Choice & Prime	1,358	1,042	1,030	+30	+32
Gd. Com'l. & Util.	444	550	470	+17	+37
Total	2,002	1,592	1,500	+26	+33
Chicago average price choice steers, April-July	\$22.70	\$33.69	\$36.15	-33	-37
Feeding margin ¹	(\$24.45)	\$21.49	\$82.68		

¹Source BAE, represent average gross margins for choice yearling steers. () loss.

TABLE 8: FEEDER CATTLE MOVEMENT AND PRICES, 1951-53

Item	1953	1952	1951	1000 Head		1953 Change From
				1952	1951	
Feeder Cattle Shipments						
July-Aug. to C.B.	476	539	523	-12%	-9%	
July-Sept. from 8 mkt.	344	479	NA	-24		
Gross Cattle Marketings—7 Mkt.						
(Through Sept. 19)	348	443	320	-21	+9	
Average Prices—Kansas City (Week Ended—September 19)						
Steers—Choice 5-800 lbs.	\$19.15	\$28.50	\$37.75	-32	-49	
Heifers—Choice 5-750 lbs.	16.50	26.00	34.50	-37	-52	
St. Calves—G&Ch. 3-500 lbs.	18.50	28.25	39.50	-35		

TABLE 9: SHEEP AND LAMB BALANCE SHEET, 1942-54

Year	Jan. 1 Total Number	Lamb Crop	Total "Supply"	Slaughter Fed. Ins. Other		No. Disappear- end of year
				Million Head	Million Head	
1942	56.2	32.3	88.5	21.6	4.0	7.8
1943	55.1	30.9	86.0	23.4	3.7	8.1
1944	50.8	28.6	79.4	21.9	3.5	7.5
1945	44.5	27.0	73.5	21.2	3.4	6.5
1946	42.4	24.5	66.9	19.9	2.9	6.6
1947	37.5	21.9	59.4	16.7	2.0	6.4
1948	34.3	19.6	53.9	15.3	2.1	5.6
1949	30.9	18.3	49.2	12.1	1.7	5.6
1950	29.8	17.9	47.7	11.7	1.5	3.9
1951	30.6	18.0	46.6	10.1	1.3	3.0
1952	32.1	18.5	50.6	12.7	1.6	4.7
1953*	31.6	19.7	51.3	14.1	1.7	4.5
1954**	31.0	19.5	50.5	13.0	1.5	4.5

*Preliminary Estimates. **Potential numbers and slaughter.

TABLE 10: U.S. MEAT PRODUCTION AND PER CAPITA CONSUMPTION 1952-54

Item	Million Pounds			1954 Change From	
	1954 Prospects	1953 Prelim.	1952	1953	1952
Total Production					
Beef	12,300	12,100	9,667	+2%	+27%
Veal	1,400	1,500	1,173	+7	+36
Lamb & mutton	700	700	648	small	+8
Pork	10,200	10,200	11,547	small	-12
Total	24,800	24,500	23,035	+1	+8
Poultry*	4,266	4,163	4,038	+2	+6
Per Capita Consumption	(Pounds)				
Beef	75.0	73.8	61.2	+2%	+23%
Veal	9.3	9.3	7.1	small	+31
Lamb & mutton	4.1	4.4	4.1	-7	small
Pork	61.0	62.5	71.6	-2	-15
Total	149.4	150.0	144.0	small	+4
Poultry*	27.4	26.5	26.9	+3	+2
1954 Prospects tentative estimates of AMI. *Eviscerated Weight Basis.					

to expand at the rate of about 2,500,000 to 3,000,000 persons a year, so the per capita consumption of meat in 1954 may be a little less than in the current year—149 lbs. as against this year's figure of about 150 lbs.

Even though our figures should turn out to be somewhat in error on this score, it seems fairly certain that we will continue to have a large volume of beef compared with other recent years, and compared with other meats. For the first time in 18 years per capita beef consumption

TABLE 11: FEED BALANCE SHEET

Item	Corn (Mill. Bu.)	4 Feed Grains (Mill. T.) ¹			%
		1953-54	1952-53	Change	
Carry over—Government		245			
Other		241			
Total	800	486			
Production	3,216	3,307	-3	118.0	20.7
Imports	1	1	same	4.0 ²	5.5 ³
Total supply	4,017	3,794	+6	150.0	146.4
Fed to livestock	2,577	2,627	-2	99.0	101.4
Non-feed uses	360	367	-2	17.0	17.0
Total carry over			+35		
Year end	1,080	800		34.0	28.0
Animal units (million)	167.0	169.4	-2		
corn, oats, barley and sorghum.				Includes imports plus wheat and rye fed.	

in 1953 was larger than that of pork. This relationship seems fairly certain to continue in the year ahead.

We have checked around with some of our friends in the poultry industry and are told that the outlook is for some further expansion in supplies of poultry meat next year. Although the increase will be moderate, perhaps only 2 to 3 per cent, the large expansion in the production of broilers and turkeys which has taken place during the past ten years or so brings poultry meat up to a figure of about 27 lbs. per capita. This is equivalent to a little over 1 lb. of poultry for every 6 lbs. of beef, veal, pork and lamb.

THE FEED SITUATION: In the past we have generally opened this discussion with a brief look at the feed situation, because it has presented a potential limiting factor on livestock production. However, because the supply of feed grains is abundant, we have left this point to the last this year and wish only to point out that on the basis of the expected harvest of feed grains this fall and the number of livestock to be fed, storage stocks of grain, particularly in government hands, will continue to pile up during the 1953-54 feeding year. With the government loan rate on corn set at the national average of about \$1.50 per bushel, it appears that some farmers at least are finding it a more favorable policy to revert to grain farming than to continue the expansion in livestock farming which seemed well under way a few years ago.

SUMMARY AND HIGHLIGHTS: To summarize I should like to review these main points:

1. The 1953 spring pig crop was reduced 10 per cent while a 5 per cent cut was indicated for the fall pig crop.
2. Percentagewise these reductions were greatest in areas outside the Corn Belt, with some states showing cuts of 30 to 40 per cent.
3. Hog slaughter in the current marketing year will be reduced by about 5,000,000 head (9 per cent).
4. The reduction in hog supplies from last year will be greatest during the winter months, but beginning next fall, hog marketings may show some increase over a year earlier.
5. The hog-corn price ratio has improved materially, and an 8-10 per cent increase in next year's spring pig crop seems likely.
6. Storage stocks of both pork and lard are at relatively low levels.
7. The recent build-up in cattle numbers appears to have been halted by this year's large increase in the slaughter of cattle and calves.
8. Barring serious drought or economic recession, the outlook for 1954 is for another year of large slaugh-

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ter, with the cattle population dropping off moderately during the year.

9. Marketings of grain fed cattle were at record high levels during 1953, resulting in lower prices and generally unprofitable feeding operations.
10. The fall run of grass cattle has been slow in getting under way and through September has been smaller than last year. However, feed lot demand for cattle also has been slow, and feeder cattle prices are down sharply from 1952. The total volume of cattle fed this winter probably will be a little smaller than last year.
11. Slaughter of sheep and lambs has been large relative to the 1953 lamb crop, and the sheep population may decline a little further this year.
12. Total meat production in 1954 presently is expected to be up slightly over the current year, with slight gains in beef and veal but about the same pork and lamb. However, because of the expected further increase in our human population per capita consumption may be reduced slightly.

'Meaty' Hog's Pork is

Most Desirable



C. PLAGER

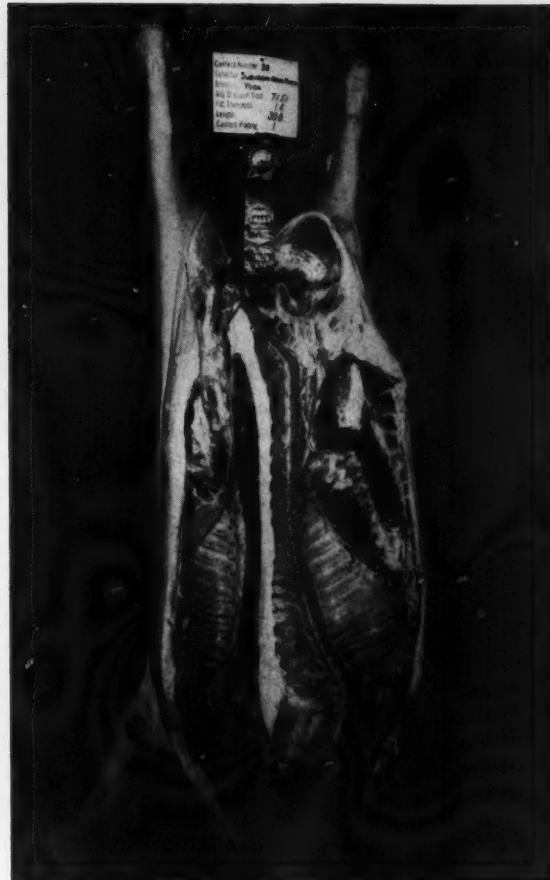
THE PICTURES SHOWN AT THIS MEETING remind you that all pork loins are not alike. Two were cut at the seventh rib and came from hogs of identical live weight. A chop from the loin to the left frequently promotes a claim or complaint, while the one to the right makes a satisfied and regular customer.

The next picture shows you the regular trimmed hams from the same two hogs. A quick look will tell you there is nearly twice as much eating in the ham to the right as in the one to the left. I repeat, they came from hogs of the same live weight.

Since these grade differences do exist in pork cuts, it is reasonable to conclude there must be a corresponding difference in live hogs. These variations in the ratio of fat to lean and quality are real. They can be expressed in dollars and cents as well as percentages.

We are not here today to debate the number, name, or specifications for grades of hog carcasses. For demonstration purposes only we are using three grades today and have decided to call them "Meaty," "Regular" and "Fat." We are using backfat thicknesses ranging from 1.2 to 1.6 in. for the meaty hog, 1.6 to 1.9 in. for the regular hog, and 2 in. and over for the fat hog.

You will understand, of course, other factors such as uniformity, ham development, balance of carcass, and quality could vary enough to put two hogs, both measuring 1.6 in., in different grades; the more desirable would be placed in the meaty grade and the less desirable in the regular. Likewise, a carcass having as little as 1.2 in. of fatback would need to be firm and shapely or be placed in an underfinished grade. We are not spending time today with the underfinished hog since normally both buyer and seller have been able to agree on its demerits.



GRAND CHAMPION PORK CARCASS, 1953 National Barrow Show, exhibited by Suburban Home Farms, Waynestown, Indiana. Breed, Yorkshire.

The first hog shown is an example of a meaty hog. It is a crossbred, weighs 205 lbs., is 29.7 in. long, and has an average fatback thickness of 1.5 in. I will show all three live views—front, rear, side—and then a picture of the carcass of this same hog.

These next pictures tell the same story for the regular hog. This hog weighs 220 lbs., is 29 in. long, and has 1.9 in. of fatback. The third group of photos depicts a typical fat hog. He is a crossbred barrow, but fools many buyers because he is trim and photogenic. He weighs 215 lbs., is 26.8 in. long, and has 2.3 in. of fatback.

I should like to show you now what each of these three carcasses look like broken into the much-talked-of four lean cuts. The meaty hog has 12 per cent fat. This includes both fatback and fat trimmings, but does not include killing fat. The four lean cuts—ham, loin, picnic, and butt—are equal to 35 per cent of the live weight. That is on the basis of a skinned ham rather than the regular shown in this picture. The regular hog has 15 per cent fat, 32 per cent in the four lean cuts, whereas the fat hog has 18 per cent fat and only 30 per cent in the four lean cuts.

Please note as the fat thickness increases, the bacon becomes less uniform. I should like to have you take particular note of the pork loins since the shape and size



YORKSHIRE BARROW, Grand champion of the 1953 National Barrow Show, owned and exhibited by Roland Remus, Sleepyeye, Minn. Live weight, 236 lbs.; carcass length, 32.8 in. with average back fat thickness of 1.6 in.; dressed yield of 70.64 per cent.

of the loin eye muscle will tell you what the live hogs looked like that furnished these loins.

Visualize if you will these loins on a live hog, but with the fat melted off. The first loin is both thick in the eye muscle and carries down well over the side. The second, or regular hog, has his muscling more concentrated at the top, while the fat hog has a kidney-shaped eye muscle. Of the live hog we say he is fish-backed, or barn roof shaped. These differences would be quite evident on a live hog in a thin condition, much less evident with a heavy fat covering.

The picnics are another of the lean cuts. The Boston butts reveal the contrast in seam fat unusually well. This condition is very evident in the self-service counter. The regular trimmed hams show the contrast sharp enough to convince me there is a difference in pork; there must be a difference in hogs. And just so you don't conclude the fat ham in this picture is a freak that I found after long and diligent searching, I brought along a picture of two more hams I found ten minutes later. These are shown to you as extreme examples. They are not a part of the regular demonstration.

I should like to have you keep these pictures in mind as you listen to my brother, Russell, so you will be fully prepared for the program that will follow. It will be the part for your participation.

Now that you agree this is not all theory, nor is it a give-away program, but rather one that is good for us as individuals or companies, we should like to call attention to the next order of business, the training program. It is frequently overlooked or regarded as unnecessary. The executive memo calling for the purchase of live hogs on a selective basis with price differentials should follow, not precede the training program.

Chicago provision prices for the 12 consecutive months of September, 1952 through August, 1953 show the typically high-quality 210-lb. live hog with a 1.5 in. of fatback was worth 98c, or almost \$1 per live hundredweight more than the hog with 1.9 in. of fatback. It was worth \$2 per live hundredweight more than the hog with 2.3 in. of fatback. The current provision market with higher prices for fat reduces these differentials by one-third.

Neither you nor anyone else should be expected to pay these differentials on a liveweight basis. Live sorting is not that accurate. The buyers we have trained call the correct grade 70 per cent of the time. This is accurate enough to make it practical, but you do need to reduce the price differential to match the error in grade sort.

Each of you should now have in your possession a combination contest and reference card. Since a television set is waiting for the winner, we suggest that you begin now by filling in your name and address in the lower left-hand corner. You will be shown three live views of 12 hogs and will be asked to record two estimates on each hog. Please record the carcass grade and average backfat thickness to the nearest tenth of an inch on both your contest and reference card. I will tell you the live weights as they are shown to you.

Quality Hog Buying Will Revive Pork



W. PLAGER

IN BEHALF OF OUR NATION'S swine producers, we welcome and thank you processors for the opportunity to discuss with you some of our mutual problems. Together, we both will benefit by doing a better job.

Hogs have played a very important part in the early development of our country, being one of its main sources of meat supply, plus oils and fat.

Today, the hog is equally as important, both from an economic standpoint and as a source of food. Many changes have come about during this period of time, but the hog still remains an important creature on Corn Belt farms and in grain-producing areas outside the Corn Belt.

My topic of discussion with you is, "What Does the Meat-Type Hog Mean to the Producer?" The answer to this can be given in a very few words. First, to the producer the meat-type hog means maintaining the best demand for pork products. This we have enjoyed over a period of many years. At the present time, however, this demand is being threatened by over-fat pork cuts at the meat counter.

Second, the lower production of pork products due to over-fat cuts will shrink the best market we have for corn in our Corn Belt states. In Iowa alone, two-thirds to three-quarters of our total production of corn is marketed through hogs. The rest goes to other livestock, to poultry and for commercial use. Many bushels of corn are under government seal at the present time, which is good protection to the livestock producers, but the government now owns about all the corn it cares for or needs. Corn and hogs always have gone hand in hand, almost being one word. Porkers are the biggest and best market for corn. It is worth keeping.

The third reason for a meat-type hog is a selfish but necessary evil—as in all business—farm income and profit. Approximately 40 per cent of farm income in the state of Iowa comes from hogs. This percentage of the total income has been higher at times but never much lower. Hogs have paid more debts, educated more children,

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Four projectors flashed pictures on four screens in jam-packed session on meat-type hog grading.



bought more necessities of life for more farmers than any other source of farm revenue in our state and many other states. It is no wonder that we of the state of Iowa, along with other hog producers, should be interested in keeping Mrs. America buying liberal amounts of pork products. The average per capita pork consumption is taking quite a beating at the present time; it has dropped about 10 lbs. this year from recent averages.

These three reasons sum up our producers' interests. What has caused our present troubles is another thing.

Most people like good pork. In fact, hardly a day goes by that some city friend does not mention to me that he wishes he could buy a good piece of pork. What has happened? The criticism is nearly 100 per cent that the pork cuts at the meat counters are too fat, not trimmed enough or there is too much inseparable fat inside the cut of pork. Many swine producers themselves are eating less pork, using its products for income only. This cannot last. What happens to swine production if the per capita consumption of pork goes down one pound? It means that we must produce 1,500,000 fewer hogs. Ten pounds loss per capita means 15,000,000 fewer hogs to grow, less to sell and a lot less hogs to process. If Iowa would cut its proportionate share of hog production one pound per capita, it would mean 300,000 hogs or the total production of two of our large counties. Stop and think

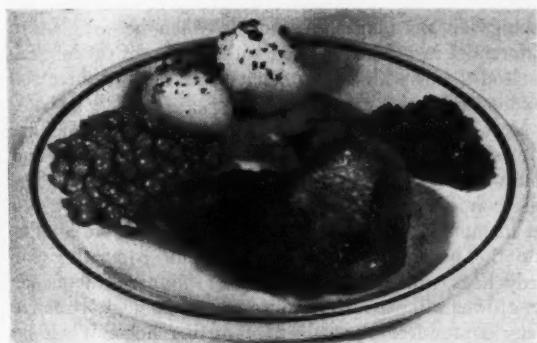
what this loss in volume means, both to us as producers and you as processors.

Besides reduction of swine numbers, we have put more corn into competition with an already burdensome surplus. The government does not need any more corn and farm income takes a further beating. A vicious circle has developed—the larger the reduction the more vicious the circle may become. No manufacturer is going to produce a product on which the buying public has emphatically turned thumbs down and stay in business very long. Henry Ford would just as soon have continued the production of the Model T. The buying public said no to the Model T. He almost waited too long to make the change.

I mentioned earlier that our eating habits have changed. We do not care to consume as much fat under present-day living in our cuts of meat. There has been a big change in the over-all production of fats and oils, such as soybeans, in the last 25 years. This condition calls for a change in swine production and processing. We in the swine industry are not the only ones who have been confronted with need for change. The dairymen have fat as a problem also. Many people are complaining about over-fat beef, and if the supply of prime beef were as large as that of over-fat cuts of pork you would hear just as many complaints. The sheep men are having their troubles with wool. All must readjust their operations. The \$64 question is, are we going to do something about it in the swine industry before it is too late?

What has been wrong with the swine industry? Well, for one thing, both producers and processors became far too satisfied with the job being done. We were both making money. It is hard to keep pace with the times when this kind of a feeling exists. Progress stops with satisfaction. We have many producers so it becomes harder to get real organization and leadership. The right kind of leadership, with incentive, can do much to improve swine production. The reason is you are dealing with one individual who is mainly responsible for the final product that comes to you in process. The swine producer, and he alone, is responsible for the selection of breeding stock, the growing of the pigs and the weight and finish at which they are marketed.

Your encouragement for this one individual can do much to mold the kind of product that he brings to you to process. It will help much to improve the product you



THIS IS A GOOD EXAMPLE of the meaty center-cut pork chop from a meat-type hog—the kind consumers prefer to buy and hog men and packers prefer to produce and merchandise.



LEFT: George V. Charniga, Joseph J. Frank, president; Harry Maurer, John F. Motley and Frank L. Charniga, all of Hercules Fasteners, Inc., Elizabeth, N.J.

RIGHT: Kenneth Hartley, branch manager; Claude Johnstone, Jack Holthof, flavor consultant; Jules Bauer, sales coordinator, and Frank Pond, all of Dodge & Olcott, Inc., New York.



have to sell. We both will benefit. The exception, of course, would be the one who buys and feeds feeder pigs, but weight and finish can be controlled here also by incentive. We producers welcome your help.

What has caused the producer to continue to raise this fat hog in spite of the fact that he has a moral obligation to the swine industry to produce the right kind? The fact is that he has been paid the same for fat hogs as the producer of the meat-type. I can cite you cases all day where this has happened but time will not permit. However, I know of one local stockyard that has gone out and bought hogs of three grades and shipped them to its public market. All three grades sold for the same price. The bottom grade of those selected was poorer than usual but brought the same price.

I have a letter from a packer friend of mine in which he states there are two reasons why this quality buying of hogs will never work. One is that it costs too much to sort hogs and the other that there is no great difference in the carcasses. In regard to the last, I know that there is not as much difference as in lamb or beef carcasses. It still remains that there is a great difference which you surely have seen.

In regard to the first, it certainly costs very little more to sort hogs than it does cattle. I judge a lot of swine shows and I don't generally take my wife with me because it is a little bit like a baseball umpire taking his wife out to the ballgame. I think I am going to have to do more of it. Just the other day at Spencer, Iowa, my wife heard a good many commercial producers commenting in the bleachers on the way I was selecting my meat-type market hogs for the top of the classes. One comment was that the kind I was picking might help keep our pork customers. They also suggested that I urge packers to train their buyers to buy on a more selective basis. They commented their buyers had been trying to buy the kind I was leaving at the bottom of the classes in my judging in the ring.

Not too many years ago the producer of today's meat-type hog was even discounted at many markets and packing plants. It has been the buyers' system of averages that has protected the hog buyer and packing plants in the past. You have paid too much for the fat ones, and you have bought the good ones too cheap. They have

averaged up OK at the end of the day, week, month or year and in most cases at a profit.

I realize pork processing is operated on a volume basis. In that kind of an operation it is easy for numbers to become more important at times than quality. I think ignoring quality for numbers is our main source of the evils that are existing today in the buying of hogs. Let me repeat. I realize pork processing is operated on a volume basis. In that kind of an operation it is easy for numbers to become more important than quality. If I were operating a plant under these conditions, I would want my buyers to be so trained that they at least would know when they were paying too much for hogs when they were scarce.

Only recently I overheard a hog buyer for one of our larger packing plants make a statement, "If some of the plants do not quit sorting hogs, it is going to force me and my company to it." I am sorry that anyone should ever feel that he is being forced to do something that is so vital to the future of such a great industry, something that means so much to both of us.

We producers feel that the packers' system of buying hogs on average has not been conducive to quality swine production. You name me any farm or other commodity that is bought on average with quality ignored. Take grains, cattle, cream, coal, automobiles or what-have-you and you will find top quality selling at a higher price and poorer quality at a lower price. This proved system of buying has been practically ignored in hog buying during the past.

We do not expect hog buyers to grade and buy by tenths of inches of fatback. The producer in turn is not asking for anything unreasonable when he asks for a differential in price for a hog with 1 1/2 in. of fat in comparison to one with 2 1/2 in. I have seen both of them sell for the same price many times.

Most producers just want what they are worth. We are not asking for a handout. Discount the lardy type and you will have educated the producer much faster. The longer hog buyers worry about losing the fat hogs to get his numbers, the more time it is going to take to educate the producer. The sooner we quit competing for lardy hogs which are losing pork customers, the faster the grower will learn to produce meat-type hogs. I realize many a producer has balked at sorting hogs. When he loses his market for those fat stinkers and has been paid more for meat-type, your trouble will have ended. Don't forget that many of the same hog producers sell cattle and you sort them. Recent figures of Iowa State College that have not been published to date show that better



Barbara Neal, AMI, registers Mrs. R. M. Lamon and Mrs. John H. Bryan of Bryan Bros. Packing Co., West Point, Miss. for ladies' convention activities.



Registration desk in foyer off Grand Ballroom was busier than the local bank on Saturday morning.



Attendance was high and interest keen as packers assembled for convention's opening session in Red Lacquer room.

Below: More ladies gather around registration desk to check on special activities for their five-day stay in Chicago.

than 60 per cent of the producers would be willing to have their hogs sorted if it is done right. We can understand why some producers have complained about having their hogs sorted in past years. The men who have sorted them have not been trained to do so. They have been sorted by scale and pencil, not for muscle that the housewife wants or for the right degree of finish.

I wish you could see some of the hogs I have seen buyers of the past pick as top hogs, nothing short of two inches of fatback. They are not the only ones. Some breeders have picked the same kind and many of our college people have done likewise. Paying too much for these fat hogs to me is like buying a watermelon for the rind.

A farmer is very sensitive. He has the same sense of feel that any other human being has. His most sensitive place is much like that of any other person, his pocket-book. When this vital section is stabbed, he can do much to cure the cause in a short time. Quality hog buying will soon have those commercial producers who have ignored meat-type hogs in the past looking for breeding stock of superior muscling. This in turn will tend to influence the purebred breeder toward the meat-type goal. Breeding stock with more muscle must be developed in hogs. It can be done the same way that beef cattle breeders have developed superior muscled animals. The dairy breeders have done the same thing, only their goal was milk production.

Many say, "Why has the purebred breeder not done this before?" He had to produce what he could sell best to stay in business during the past. The wrong kind has been in demand because that kind brought the same price as the meat-type at the market. Therefore, commercial producers continued to buy the wrong kind of breeding



The guessing contest, staged in conjunction with AMI's natural casing sausage display in the foyer off the ballroom, caused a lot of speculation. The winner, Fred Kraushein, Peters Sausage Co., Detroit, guessed the exact total of 1530 franks.

stock. With quality hog buying, the hog with superior muscling along with the right amount of finish would lower the total production of lard and increase pork consumption at the same time. Once again—pork producers and processors would benefit alike.

The fortunate thing for the future of the pork industry is that this meat-type hog can be produced as cheaply as the wrong kind. In many cases it can be done cheaper. This meat-type hog has more length of body which tends to increase litter size, along with number of teats so more pigs can be raised per sow. Milking ability normally increases with this type of sow as does inclination to use good pasture to a better advantage. Some would confuse the real meat-type hog with the rail splitter that has length only, no spring of rib, showing no muscle through the back, loin or ham. Some would confuse this meat-type hog with the runt. The reason he might have had a meat-type carcass is that he went to town with the right amount of finish. His good-doing brother would have been as meaty or meatier than the runt with the right amount of finish. Don't be misled by this long slim-jim hog that lacks muscle for meat. He is a meatless wonder.

Many people fear we could not produce enough lard with the meat-type hog. You can relax and quit worrying because we can produce all the lard we ever will need on meat-type hogs by just feeding them longer, or to heavier weights.

It is a sad state of affairs that both parties, producer and processor, drifted during the years past to the place where each has failed to accept his responsibility for the good of such an important phase of agriculture, that of furnishing the kind of pork that the people of our country would rather buy and eat.

We producers want to compliment the processing industry on its efficient job of processing, number of products and the attractive manner in which they are placed on the market. You have done a grand job in this field.

You in turn have been slow to accept the responsibility for improvement at the source of your raw material where much of your money is spent. Anything that you can do to help improve the quality of hogs that you process will in turn help you to improve the product which you have to sell. This in turn will help increase the volume and, of course, would benefit both—us as producers and you as



Walter T. Ray, Lucas L. Lorenz, Inc., Brooklyn; A. W. Miller, Schwenger-Klein, Inc., Cleveland; Karl C. Seelbach, K. C. Seelbach Co., Inc., New York, and Elmer Keebler, Keebler Engineering Co., Chicago. Back Row: B. H. Seelbach, K. C. Seelbach, Inc., and George Brendel, Lucas L. Lorenz, Inc.

processors of pork for the consumers of the United States.

You can produce this better product from this meat-type hog just as cheap or cheaper, the same as the producers can raise the meat-type hog for less money. Never lose sight of the fact that this additional volume will mean much to both of us.

I believe quality hog buying will do more in less time to get a source of meat-type hogs for you than any single thing you can do. The producers' and the processors' increase in volume from sales of this kind of production will do much to increase profit for both of us. There is a huge potential market for the right kind of pork. The hog has been the mortgage lifter for the farmer. I understand he has played the same role for you as a packer. Let's keep him working for us by keeping the consumer demands ever present in our minds. All we producers want is a system of buying that will discourage production of the wrong kind of hogs and encourage the production of meat-type hogs. We can benefit together from the results. What has happened in the past is water over the dam—it is the future that I am interested in.

Better Pork Wanted

By Consumers



R. PLAGER

AS I LISTENED TO WILBUR point out the producer's stake in the swine industry and Carroll explain consumer's preferences as well as refute that old adage that pigs are pigs, I tried to place myself in the audience with you. I wanted to anticipate some of the questions that came to your minds as you listened to their comments.

I attempted to do that for the reason that you men have the reputation for asking some rather searching questions. If you didn't you probably wouldn't hold the positions you hold in your respective companies.

If I am correct, you have two primary questions in mind. First, what is this—some scheme some theorists thought up as a way to make friends with the farmers by simply giving them more money for their livestock? What's in it for my company? What's in it for the industry?

Your second reaction may be that it's a fine theory, but how are you ever going to put it into practice?

Let's tackle the first question first. What's in it for my company? What's in it for the industry?

Now I believe we are all sympathetic with the hog producer's problems and we can see how a program in line with the discussion thus far would be of benefit to him. We also know that the customer is boss and must be provided with the kind of product she wants. We can see how the consumer might look with favor on any program that would encourage the production of top quality pork.

For purely selfish reasons, however, I am going to suggest that we temporarily forget about the producer and forget about the consumer. We will consider the welfare of no one outside of the packing industry—just us.

Now, I haven't been around as long as some of you men



LEFT: In front row are Paul J. Schlueter, secretary-treasurer; H. R. De Cressey, president; Al Peters, W. C. Hansen, technical director, and Dan L. Gruber. Back row: Bill Christensen, Bob Klotz, Bob Lindahl and Glenn Granath, all of Milwaukee Spice Mills, Milwaukee.

RIGHT: W. B. "Mac" McCray, Pete Starr, Ray H. Starr, Mrs. Mildred Graham, and S. M. "Scotty" Graham, all of Koch Supplies, Kansas City, Mo.

but I have been around long enough to form the opinion that Mr. Porker has been as much a mortgage lifter for the packing industry as he has for the farmer. This year may be an exception but perhaps that only emphasizes the point. We have had an excellent example this year of what can happen to the financial statements of our firms when pork volume drops.

Although we recognize that a number of factors are responsible for our financial results it is interesting to note that since 1935 per capita pork consumption has averaged slightly over 66 pounds. During the years consumption exceeded this figure, our industry profit has averaged 1.2 cents per dollar of sales. During the years consumption was less than 66 pounds per capita our industry profit has averaged only .9 of a cent per dollar of sales.

One of the answers a farmer has to a market that declines below his cost of production is to reduce his volume to a point where prices will rise to a level that permits him to stay in business. When he reduces his volume, however, he also reduces our volume and we all acknowledge that volume is essential to our business. If his product loses favor with the public, and certainly fat pork cuts are losing favor, production will be adjusted downward in line with lost demand.

I am not suggesting that pork consumption will become a lost item, but we have a number of examples of what can happen to any industry that does not keep pace with consumer demand.

It seems to me, gentlemen, that this is what is in it for us. If I didn't firmly believe that we have a financial stake in encouraging the production of quality pork I wouldn't be interested in taking your time or mine to discuss it with you today. To me it is simply good business.

Now, let's analyze the second question — It's a fine theory but how are you going to put it into practice?

In my work I am in frequent contact with farmers. I see a number of others in this audience who are also. I believe I know as well as anyone in this room why we don't want to change our method of buying hogs. I have written and spoken the reasons many times.

We have told farmers we can't sort their hogs until they are willing to accept a sort and are willing to take lower prices for overfinished hogs if we pay them higher prices

for meat type. We've told them the hog business is as different from the beef business as night from day, and that we don't have the wide spread in quality in trimmed commercial cuts of pork that we have in beef. We've told them our business is a volume business, therefore we can't always recognize quality during the famine period of the feast and famine receipts.

We've told them it isn't possible to predict with 100 per cent accuracy the carcass grades of live hogs and we have told them they can raise good meaty hogs as cheaply as they can the lardy kind so why not do it.

We've got a good story and every word of it is true. The only trouble with it is that it doesn't satisfy Mr. Farmer and it isn't converting him over to the production of the kind of pork we know he ought to be producing.

He listens intently while we point out the decline in lard prices in recent years then he says, "If it's that serious I would think you would try to do something about it."

He sits quietly while we explain the differences in the cutout value of the meat type carcasses compared to the highly overfinished ones and he can see why Mrs. Housewife doesn't want the pork chops with excessive fat. He doesn't want them himself. But then he says "I don't see why you pay the same price for my neighbor's lardy hogs that you pay for my meaty hogs if his are worth less."

Not bad questions, are they? Sound like some you men would ask if the situation were reversed.

I am well aware that our business cannot be changed



FRONT ROW: William F. Payton, secretary; Mrs. W. F. Payton, Margaret Shea and Katherine Pfeifer. Back Row: John H. Payton, president, Mrs. J. H. Payton, and Robert H. Skadow, vice president, all of Great Lakes Stamp & Manufacturing Co., Chicago.



Harry L. Sparks, president, H. L. Sparks & Co., National Stock Yards, Ill., and Mrs. Sparks.



Mike Pulliam, buyer, E. W. Kneip, Inc., Chicago, and C. D. Jones, THE NATIONAL PROVISIONER DAILY MARKET SERVICE.



Charles V. Franklyn, president, and Natalie Wilkinson, vice president, Mound Tool Co., St. Louis.



S. A. Grancio, and C. Frank, Famco division, Allen Gauge & Tool Co., Pittsburgh.

overnight. I am aware, too, that any changes that are made will be accompanied by headaches, misunderstandings and some hard feelings. That is about the same price, however, that we have always had to pay for anything that was worthwhile.

You men certainly didn't wait until you had your present day list of customers or your present source of livestock supplies before starting into business. It was no Utopia. You developed it as you went along and it responded to your efforts.

By the same token we cannot expect that some morning all hog producers will be willing to accept lower prices for overfat hogs than we can afford to pay for the meaty, desirably finished ones. Now I suspect that if many of us adopted a policy of buying hogs on a merit basis tomorrow morning, we would develop some ill-will and hard feelings. Not because of the policy but due to the technique used in putting it into practice. I would like to caution you for that reason not to be too hasty in condemning the policy rather than the technique on your first trial. It will take some patience, some explaining and some education.

All our hog buyers will not be able to accomplish

100 per cent accuracy in sorting hogs into specific carcass grades. The buyer who cannot tell a hog with 1.5 inches of backfat from the one with 2.5 inches, however, is obtaining his salary under false pretenses. You are the loser and not he.

Just last year President Hardenbergh emphasized the fact that our expenditure for livestock required by far the largest share of our sales dollar and it therefore deserved close scrutiny, especially in view of our declining returns per dollar of sales.

It has been my fortune to work with both the livestock procurement and the sales forces since becoming associated with the packing industry and it occurs to me that some of our sales philosophy might also be applied to our procurement of livestock. I doubt seriously that we have given our livestock buying activities the same attention that we have given some of our other divisions.

I have tried in this brief time to recognize some of the problems as well as the advantages in encouraging the production of quality pork.

The obstacles are what we see when we take our eyes off the goal, and I would simply like to close by reminding you that history is full of accomplishments that we just knew couldn't be done.

Wentworth Is Top Hog Grader

Members of the audience at the hog and pork carcass demonstration staged by the Plager brothers participated in a live hog grading contest. The packers were shown three views (front, rear and side) of each of 12 live hogs of different breeds and were told the live weights of the animals. Participants were asked to place the hogs in one of three grades, "A," "B" and "C," in accordance with their evaluation of the "meaty" characteristics of the different animals and their estimated back fat thickness.

The winner was *Edward N. Wentworth*, director of the livestock bureau of Armour and Company, who not only graded nine of the 12 hogs correctly, but estimated back fat thickness with an accumulative error of only 2 1/10 in. for the 12 hogs.

The following five men also graded nine of the 12 hogs correctly, but missed the back fat thickness by a wider margin than Wentworth:

H. L. Cooper, Tobin Packing Co., 3 3/10 in. on back fat estimate; Roy F. Melchior, Agar Packing & Provision Corp., 2 7/10 in. on back fat estimate; Chester G. Newcomb, jr., Cleveland Provision Co., 2 7/10 in. on back fat estimate; Ralph W. Pouk, Armour and Company, 3 1/10 in. on back fat estimate, and Bernard S. Schweigert, American Meat Institute Foundation, 3 4/10 in. on back fat estimate.

Twenty-three in the audience graded eight hogs correctly; 46 picked seven of the 12; 51 were right on six hogs; 39 hit on five; 28 came up with four; 12 were right on three; three estimated two hogs correctly and two came up with a score of one. There were 210 participating in the grading contest with an average of six plus out of the 12 graded correctly.

Engineering & Construction

"Increasing Plant Refrigeration Capacity Without Major Capital Outlays" by F. W. Marlow, Krey Packing Co. — "AMI Pilot Plant Indicates Savings in Handling Packinghouse Waste" by George J. Schroepfer, University of Minnesota — "New Methods Save Construction Costs for a Refrigerated Warehouse" by Ralph J. Epstein, A. Epstein and Sons — "New Construction Methods for a Meat Packing Plant" by Fred Homan, Sierra Meat Company.

How to Obtain More

Refrigeration



F. W. MARLOW

DURING THESE TIMES of stiff competition we are all concerned with the over-all efficiency of our refrigeration plants.

It is our purpose to point to a few places where savings can be made without major capital outlay. We will confine our remarks to those improvements it may be possible to make in some plants where additional capacity is needed, but not enough extra capacity to justify the purchase of another refrigerating machine.

Most of our remarks are about those items now being followed by many plants as routine inspection. However, it is always well to review items that may help to increase operating efficiency.

One of the first things to do is to determine whether there are units or coils in some rooms that require lower suction pressures in order to maintain temperature. This condition may be remedied either by draining out oil accumulation or dropping ice and snow or reducing scale formations or by adding more evaporating surface in those places which would permit carrying a higher back pressure.

Quite often additional coils or cooling units have been added and no provision made for increasing the size of the ammonia suction lines. This creates a larger drop in pressure than previously and can only be remedied by installing an additional suction line or by replacing the old line with a new and larger one. These determinations

can be made by installing pressure gauges in different places throughout the plant.

Not only can a saving be made by raising suction pressures but where suction lines are exposed to outside temperature there will be a saving in heat loss through the pipe covering due to the smaller differential between the temperature of the ammonia gas in the pipe and the ambient temperature.

In plants having open brine tanks which are not large enough to take care of increased loads without lowering back pressure, it will prove economical to install a shell and tube brine cooler in conjunction with the old tanks. In our plant, this was the case and the extra brine cooling capacity with the addition of six 24-in. vertical overhead circulating fans in each of our hog coolers now permits us to chill hogs in two hours less time and with less shrink.

Also by circulating more brine, the temperature of the brine can be raised which in turn requires less salt to keep it above the freezing point. Brine sprayed for chilling rooms absorbs water vapor from the air. After becoming aerated the pH value drops from the alkaline to the acid level. If not corrected this causes corrosion which can become very serious.

There are two methods which can be used to prevent corrosion. Either the brine may be kept alkaline by the addition of alkaline materials such as caustic soda, or it may be treated with an inhibitor such as phosphate or sodium dichromate. Sodium dichromate can be used only in closed systems because the MID will not permit its use in open systems. The use of alkaline materials to keep pH within the alkaline scale has a tendency to build up scale deposits which reduce the efficiency of heat transfer surfaces. We therefore prefer the daily use of an inhibitor.

Accumulators in the suction lines of ammonia compressors have been in use for years, chiefly as a safety factor. Many of us, however, have acquired "grey hair" listening to the pounding of a steam-driven liquid ammonia pump.

With the advent of the double stage rotary and centrifugal ammonia pumps with starting and stopping controlled by float switches with alarms, accumulators do not present the hazard they formerly did.

On the contrary they are necessary and not only prevent "slugging" of compressors, but also increase capacity of compressors. It is customary to install a liquid ammonia cooling coil in accumulators to take advantage of the sub-cooling of liquid ammonia before it reaches the evaporators in the plant. In other words, the accumulator is used as a heat exchanger to lower the amount of flash gas in evaporators. This makes all evaporators in the plant more efficient and reduces the cubic feet of ammonia gas to be pumped by the ammonia compressors which, in turn, increases their capacity.

By installing accumulators at our plant we have increased our compressor capacity about 10 to 15 per cent due to pre-cooling of liquid ammonia and by pumping practically dry saturated gas at all times. With an accumulator, evaporators by means of surge tanks and float level controls can be flooded to increase capacity in the plant.

With flooded coils in air units efficiency can be increased as much as 30 per cent over those operated by expansion valves where safety demands superheated gas

at the outlet of coils. Any carryover from flooded coils is trapped by the accumulator and returned by the liquid ammonia pump to the ammonia receiver and returned to evaporators without going through the ammonia compressors. Ammonia rod packing lasts many times longer and loss of ammonia around stuffing boxes is negligible. It is a satisfaction, moreover, to know that the danger of "slugging" is eliminated.

By making changes in our ammonia evaporating system we have been able to raise our back pressure 5 lbs., from 15 lbs. to 20 lbs. As an example to show what savings can be effected by raising ammonia suction pressure 5 lbs., the saving in horsepower per ton is approximately 0.15 at 155 lbs. gauge pressure, which means about 10 per cent on the coal pile.

Various other pressures and savings have, of course, been effected. For example, at 185-lb. condenser pressure the saving in horsepower is .18, which also is a saving of about 10 per cent.

We also have a chart to show graphically the difference in cubic feet of ammonia gas at 95 per cent quality that must be pumped to produce one ton of refrigeration. We note that at 15 lbs. suction pressure and 160 lbs. condenser pressure that the amount of ammonia gas per ton is 5,670 cu. ft. and at 20 lbs. suction pressure is 4,870 cu. ft., which is a difference of 800 cu. ft. or 14 per cent increase in tonnage. This illustrates how important it is to raise suction pressures.

As we all know, the lower the condenser pressure the more economical the operation. In our plant we have lowered our condenser pressure considerably by installing induced draft-cooling towers instead of the old natural draft towers. In our smaller plants, we have changed to evaporative condensers which make an ideal installation and should be given careful consideration by packing-house operating men.

Condenser pressure should be checked periodically by taking the temperature of the water coming off the condenser and comparing it with the corresponding pressure in the ammonia table. If there is more than 10 lbs. difference between the actual pressure and the corresponding pressure shown in the ammonia table, the indication is that there are non-condensable gases trapped in the system that should be purged.

In order to hold the lowest possible condenser pressure, an ammonia refrigerating plant should have an automatic non-condensable gas purger which should be connected to the top of the liquid ammonia receiver.

The few points we have mentioned are not intended as a panacea for all the troubles that may arise in an ammonia refrigeration plant. However, they are offered as something to think about when we are looking around our plants to see if we can raise suction pressures and lower condenser pressures.



TOP: J. Harold Peters, vice president, Peters Sausage Co., Detroit; George Wilson, food technologist, American Meat Institute Foundation, and Elaine Josephson, home economist, American Meat Institute Foundation. They are testing the difference between conventionally retorted and dielectrically heated canned luncheon meat.

BOTTOM: W. C. Cunningham, purchasing agent, Belantone Packing Co., Greenville, S. C.; Henry Wichmann, plant superintendent, and Rube Rosenthal, vice president, both of Samuel & Co., Dallas.

Anaerobic Digestion

Holds Promise



SCHROEPFER

ALL THROUGH THIS TALK I will mention "we" and "us," and by "we" I mean the AMI committee. I would particularly like to call attention to the chairman, Mr. Sanders, who originally encouraged the investigation of this new method of waste treatment. I believe that Mr. Aikins, the present chairman of this group, and almost all the other members of

the American Meat Institute committee of nine are here at the meeting.

I would like to express appreciation for all the work Henry Tefft has done this last year. I will have to say something about the Hormel organization, too, in that they provided the facilities for carrying on this research program. Mr. Fullen, the chemist of Hormel, is really the developer of this process. He is here and I hope he will say something at the conclusion of my remarks. Then I should also say by "we" and "us" I mean the associates I had on the project — men from the University who assisted me and also the sanitary engineer, Mr. Anderson, whom the Institute employed on a full-time basis during the last year. He has resided in Austin, Minn., and has carried out this work with Mr. Fullen.

My part in this project is probably minor. I am the lucky one who has been given the opportunity to tell you of the results of this research.

The history of this project includes the tests which were begun in 1949 and the work that has been going on practically continuously since that time. The research program, as the chairman announced, was begun a year ago, and what I have to say today relates particularly to it. By necessity, however, I will have to compare it with the early work so you can see what actually has been accomplished.

I probably should tell first how this process of sewage treatment differs from what usually is used for the treatment of packinghouse wastes.

The general process where high degrees of treatment are required calls for biological treatment — the use of

bacteria and other organisms that live and thrive in the presence of oxygen.

In one process the sewage is sprayed on beds of stone and oxygen is picked up in that process. Another method involves the aeration of packinghouse wastes with air; this is called the activated sludge process. These are the conventional types.

The process we are investigating is called anaerobic and this name indicates the difference in the kind of bacteria involved. These bacteria work in the absence of oxygen. They multiply and are used to convert unstable organic material to stable material.

I might explain another term that I am going to be using all through this talk and that you will see in the charts. It is the three letters, BOD. They stand for biochemical oxygen demand, a \$64 phrase which means simply the contaminating effect of the organic material in either sewage or waste when it is discharged. The measure

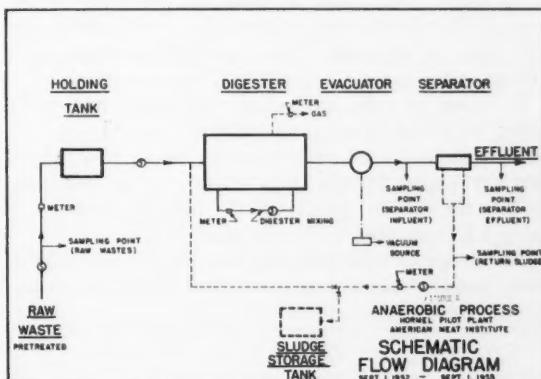


FIGURE 2

of oxygen that is required to stabilize the organic material is quite close to the volatile solids determination as far as numerical value for packinghouse waste is concerned.

So, the BOD term is a measure of organic material, particularly the oxygen-requiring qualities of the waste.

The principal unit of the pilot plant is a digester which is 16 ft. long, 8 ft. wide and 8 ft. deep. The bottom of the digester is cone shaped. The pilot plant is not a bottle scale or barrel scale development. It is a pretty good-sized unit.

Half a dozen pumps are employed in the pilot plant. Temperature and volumetric control and volume measurement have been included in this plant, all through the courtesy of Hormel.

Now, as I said, this process has been used since 1949. The flow diagram has changed many times. Figure 1 is the flow diagram in general use before we started our research. Raw waste enters here. The first unit is a holding tank; i.e., an equalizing tank, to handle the variations between day and night flow. This is the digester. It is 16 ft. across and is the unit in which the organic decomposition occurs in the presence of bacteria and heat.

Next is the separator which is half the size of the digester. That originally was followed by a flocculation plant, an Imhoff tank and a trickling filter. As a result

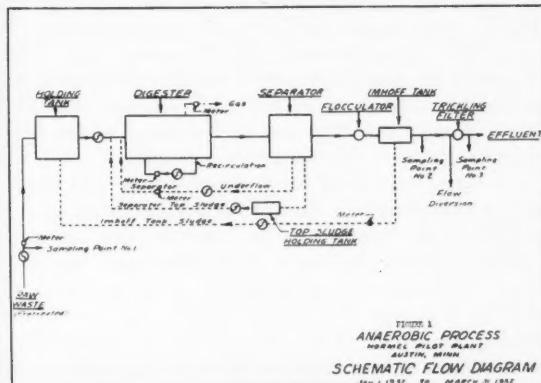


FIGURE 1

of the preliminary work we had some ideas that we could improve the separation. The removal of suspended solids was extremely low, in the neighborhood of 75 per cent, which meant that we lost solids and couldn't build up the process to as high a state of efficiency as we wanted.

Figure 2 will explain the new process. These wastes always were pretreated by settling for about 15 to 20 minutes to take out the very heavy material. This might not be necessary in a large scale development, but because of the size of the pipelines and the pumps on this small scale one, it was necessary to pretreat the waste.

The holding tank is the first unit. And then a digester. Now the process differs from what we had before in that at this point an evacuator is installed. It is a very small tank with about three to five minutes detention period, and the gas in this tank is sucked out of the sludge so that it will settle when it gets into the separator, which is, in effect, just a settling tank. The solids go to the bottom. Previously, some of the solids would rise to the top, some would settle, and a general uncertain state existed as far as the solids removal was concerned.

In order to make the solids concentrate and settle better, we added fly ash in all of these tests. Fly ash was selected because most packing plants are in areas where they can obtain fly ash. Fly ash weights the materials so that the specific gravity of the particles, instead of being 1.4, is changed to about a value of 2.

The sludge or solid material from this process is relatively small. It amounts to about 15 or 20 per cent of the

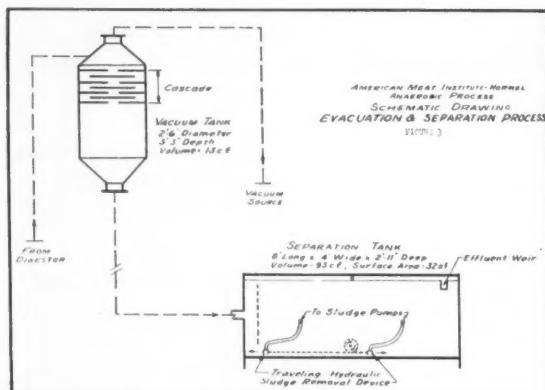


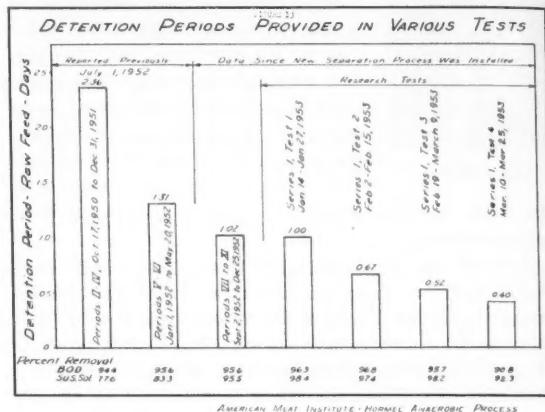
FIGURE 3

incoming solids in the raw waste. The sludge can be hauled to fields, vacuum filtered or dried on sand beds, or any number of other methods can be adopted that are used for handling sludge.

Figure 3 gives a picture of the evacuation setup in the separator tank. The liquid from the digester is elevated by a vacuum to the top of evacuation tank. It falls over splash plates at the top and a vacuum is maintained of between 25 and 27 inches. Then the liquid is discharged into a separation tank with a detention period of around two to three hours. The material that settles to the bottom is removed by a traveling hydraulic sludge device connected with a sewage pump. The solids are discharged back into the process and the clarified liquid passes over a weir and discharges to the stream.

There is one interesting thing about this process. The liquid coming in averages somewhere between 12,000 and 17,000 parts per million of suspended solids. In all these tests, the liquid going out is between 20 and 50 parts per million, or an over-all removal of 99.8 per cent, which we think is admirable.

I should point out to you that the anaerobic system



AMERICAN MEAT INSTITUTE-HORMEL ANAEROBIC PROCESS

FIGURE 4

has been used in chewing gum plants, rendering plants, molasses plants and slaughterhouse plants but none of the other plants has gone to the trouble to include something like this to actually separate the liquid from the solid waste.

Figure 4 is a picture of the result of this research project in reducing the retention periods required in the digester. Formerly, in the tests from 1950 to 1951, the detention period was around two and a half days. And then in a later period of five months, it was reduced to 1.3 days. At this point, the new separation process was put in and immediately we got it down to one day. This is when the research was started and the aim was to reduce the detention period to the point where per cent removal would fall materially. In the first test we had a one-day detention period, then two-thirds, then a half and finally four-tenths.

You notice that the BOD removal remained about 95 per cent until the retention period was reduced to four-tenths of a day when removal fell to 91 per cent. The suspended solids removal was 75 to 90 per cent at first and then went up to 95 and 97 per cent and then in turn fell down as soon as the loading was increased.

Figure 5 depicts the same thing in another way. The top part of the upper curve shows the detention period in the digester in hours as related to the removal of BOD. As we brought the detention period down to the last point, the efficiency fell down to 91 per cent.

The actual volume of waste digested is several times the raw waste fed into the system because the sludge is returned to the front end of the plant in quantities two to three times the raw waste being introduced into the plant. The actual detention period, therefore, is considerably less than if computed against the raw waste entering the system. The detention periods are actually down to three or four hours as shown on the lower curve before the per cent removal of BOD falls noticeably.

These detention periods are actually less than those

employed in anaerobic treatment by the activated sludge process.

Figure 6 shows another way of presenting almost the same thing in reverse. These are loadings in BOD and volatile solids. One part of the chart is before the new separation process and another represents an early test

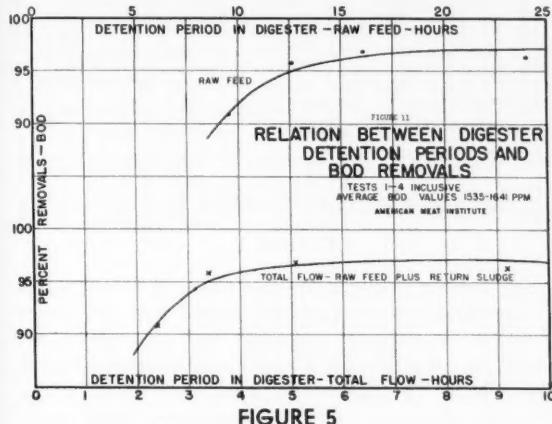
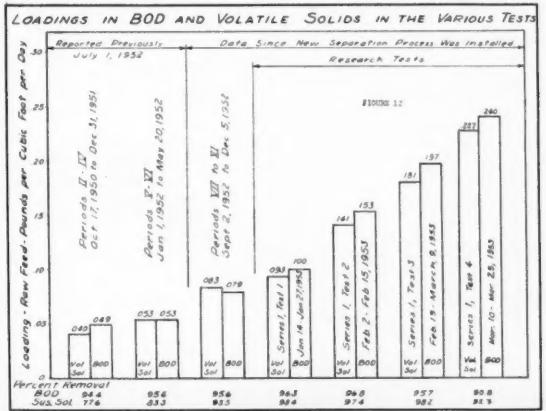


FIGURE 5

when we were trying to get the feel of the new setup. Then we gradually started increasing the loadings on the process to about 22/100 raw feed pounds per cubic foot per day. Notice the removals again at this stage; this is where they went down, as you saw before, to 91 and 92 per cent.

Figure 7 shows the effect of loadings on efficiency. The key identifies the early tests and those of the old separation process, as well as the preliminary test before the present project began. Then we started the series of loadings. At one-tenth of a pound loading, you see 97 per cent removal. The next was around 15/100. Then it went to 2/10. Then the removal came down a little bit. When loaded heavier the removal went down to 90 per cent. Removal is also shown in terms of suspended solids. Results are by the old separation process and the rest of them are by the other tests.

All of the tests we are going to talk about today were conducted at 95° F., with the exception of one test, No. 5, which was conducted at 88°. We don't know too much about the shape of the curve, but you can see an indication that the efficiency at 88° for the same loading



AMERICAN MEAT
FIGURE 4

wasn't as high as at 95°. All of these first tests were conducted with strong wastes such as the Hormel company happened to have. However, we conducted a test, No. 6, which was on packinghouse waste of normal strength, and the first one had a BOD of 1600 per million parts.

The sixth one was 1200, which is normal. And then we got a test, No. 7, on wastes that were 800, and that is weaker than average, and those points are on the chart. You see, we tested them the same as the stronger wastes. And then Test 8 was an interesting one. The expensive part of this process is the holding tank or equalizing tank. We had a hunch we might be able to show it was unnecessary to have such an expensive tank, which accomplishes no good purpose except, of course, equalization of the flow. In Test 8, we loaded the plant at 35/100 of a pound of BOD per cubic ft. per day at daytime and then at night we loaded it way down here some place. In other words, during the daytime we loaded it at six times the range we did at night to simulate a packing plant with the ordinary variations without an equalizing tank, and that point fell here.

Figure 8 compares results of the anaerobic contact process, with the loading in pounds BOD per cubic ft.

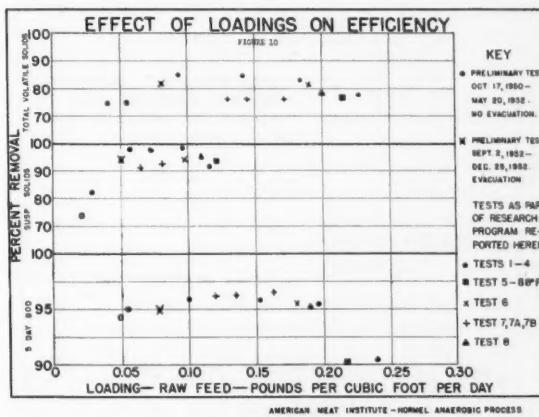


FIGURE 7

per day, with those for a conventional single-stage trickling filter. The lower curve is one that is very close to what most people accept as the variation in removal with increased loading. Since our process involves some recirculation, as high as three to one, we can see here in the middle curve what the trickling filter will do if recirculation is used. The lines at the top are the values as a result of this research on anaerobic digestion. You see, the recirculation in a trickling filter can't approach the efficiency of an anaerobic process unless you double stage or triple stage the plant. In other words, employ one stage of filters followed by another stage of filters, all of which adds to the cost.

We can obtain 95 per cent removal in loadings four to five times greater than in a conventional trickling filter plant.

Another method I mentioned was the activated sludge process (see Figure 9). The removal curve for the anaerobic process is at the top. Here is another way of expressing loadings that is commonly used in the activated sludge method of treatment. The middle curve

shows the results found by the National Research Council in studying Army activated sludge plants. The third curve is for municipal and domestic sewage treatment. We begin loadings in our process at four to five times what has been used in the activated sludge process.

I mentioned that this anaerobic method has been used on some other wastes. Figure 10 shows the results on paper mill wastes, slaughterhouse wastes and rendering wastes and the top line represents our curve.

Figure 11 depicts results of a test that we conducted on the effect of degree of mixing. Ordinarily, we have somewhere between 15 and 35 turnovers per day, representing the amount of mixing we have in this digester, and during this test period we cut it down to about a third. You will notice that whereas there was not much change in the suspended solids, the BOD removal dropped very quickly.

I have mentioned the vacuum as being an important part in the process. Figure 12 shows what happened when we cut off the vacuum. You notice the BOD removal was formerly around 80 to 90 per cent, but went way down to 25 or so, and after a rest on Saturday and Sunday went up again. The suspended solids removal went down to zero. As a matter of fact, the removal was

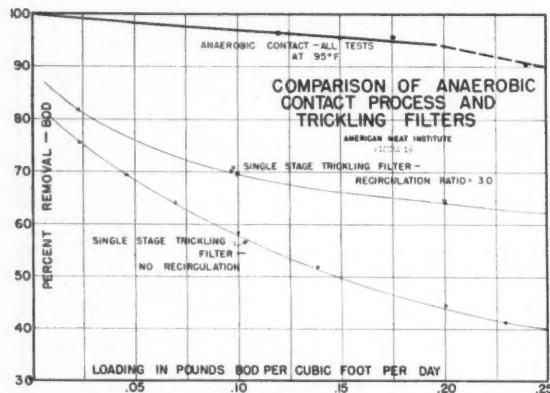


FIGURE 8

minus. More solids were leaving than were coming in. There are some practical considerations I am going to discuss. I showed you Figure 13 a year ago, but it is so important I want to reshew it. It indicates why this process will fit in well with packinghouse wastes. The chart shows the temperature of all wastes in degrees Fahrenheit. Shown vertically is the annual cost of supplementary fuel to maintain the temperature of 95°. You can see that if the wastes are of average strength — that is 1200 ppm — and come into the system at about 87 or 88°, there is an exact thermal balance. You don't need any supplementary fuel at all.

On the other hand, if the wastes are at 85° which is typical for most packing plants, you need about \$2,000 of supplementary fuel. If the wastes have been diluted with an excessive amount of water, around \$5,000 of supplemental fuel is needed. If the wastes are very strong, and we cut out the excess water, there is an excess of maybe \$2,000 worth of heat. The source of heat is the product of decomposition and is about 75 to 80 per cent methane gas, and has a BTU value of around 600 to 700 per cubic foot.

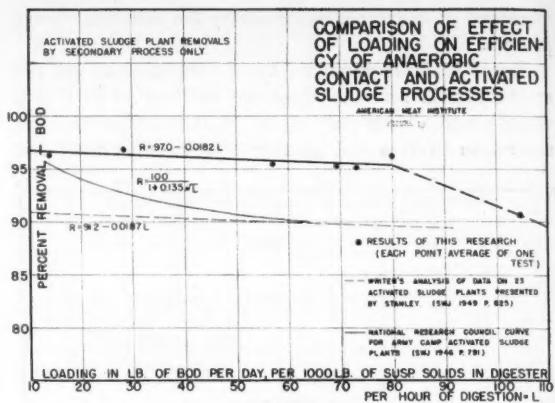


FIGURE 9

As another practical consideration, the dollar sign is important and we probably should have mentioned it earlier. It actually costs about half as much to construct an anaerobic plant as the conventional trickling filter plant. To handle half a million gallons a day flow, the construction cost of an anaerobic plant would be around \$175,000, whereas the aerobic unit would cost \$360,000, or more than twice as much.

Operation and maintenance costs appear to be about the same. In some places, the trickling filter plant is cheaper to operate and in other places, an anaerobic plant is cheaper. Close to \$21,000 a year is required for operating and maintenance costs.

When we get back to the total annual charges, the operation costs plus the fixed charges on the construction costs, and if we consider municipal financing, in which bonds are issued for a 20-year period and have an inner spread of around 3 per cent, the fixed charges would be 6 1/2 per cent. With municipal financing, the total charges for the anaerobic process would be around \$32,000 a year compared with \$44,000 a year for the trickling filter process, or in the neighborhood of three-quarters of 70 per cent or so of the cost of the trickling filter plant.

The thing that enters into this picture very definitely is the nature of this anaerobic process. Since the waste has to be warm it means that the packinghouse waste must be handled alone or, in cases where municipal wastes are small in quantity, they might be admitted. Generally speaking, however, warm and strong wastes

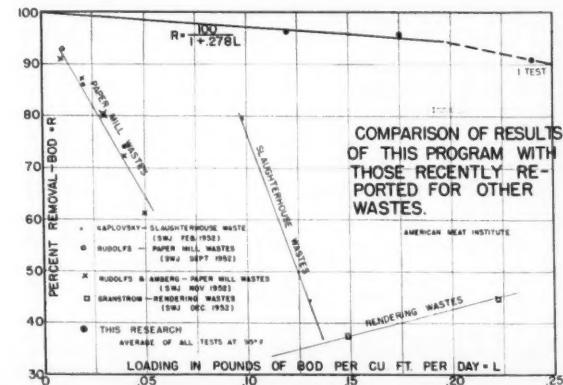


FIGURE 10

must be handled to make this process economical. It fits in very nicely when an industry must build its own plant. It is extremely economical and it also fits in nicely where the local taxes are low. For example the plant could be situated outside the city limits and only county or state taxes would apply. The process would fit in where industrial wastes are a major share of all wastes, or where the wastes from the packing industry are 90 to 95 per cent of the total.

Here is the summary of the highlights of a 170-page report on this research project:

1. A process has been developed, which for this type of waste is capable of accomplishing removals in 5-day BOD and in suspended solids of 95 per cent of loadings up to .20 pounds of BOD per cubic foot of digester volume per day.

2. These removals can be accomplished with detention periods in the digester of less than 12 hours based on the raw flow, and less than 3-1/2 hours on the basis of total flow (raw flow plus return sludge).

3. With equal or greater removals, the process can be loaded up to four times the rate possible for conventional aerobic processes.

4. Contact between the raw waste and the biologically active sludge, measured both in time and surface area of the sludge particles, appears to be an essential of the process. The new method has been denoted as an anaerobic contact process.

5. The flow diagram of the process is not unlike that of the conventional activated sludge plant. The better results in the anaerobic process at higher loadings can be explained partly by the temperature advantage, and by

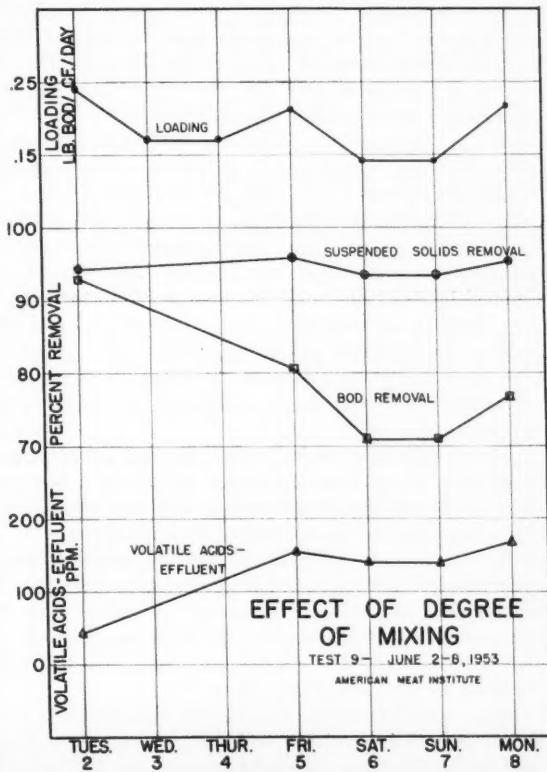


FIGURE 11

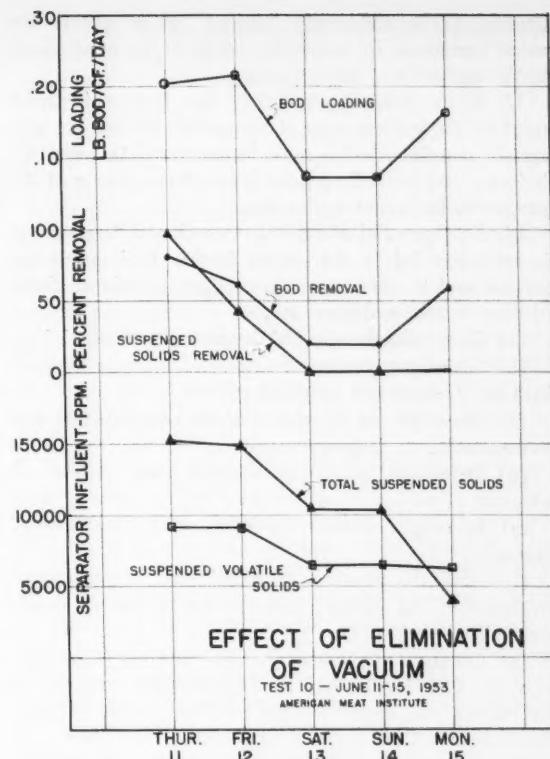


FIGURE 12

the fact that the suspended solids in the mixed liquor can be maintained near 15,000 ppm affording a much greater contact surface as compared to 2,000 - 3,000 ppm possible in the conventional activated sludge plant.

6. The process differs from other anaerobic applications by reason of the development of a method of separation. The ability effectively and consistently to separate the solids from the liquid is shown by the fact that the influent to the separation process in all of the tests ranged from 12,000 to 17,000 ppm of suspended solids and the effluent from 20 to 50 ppm, with removals of approximately 99.8 per cent. Application of these principles to ordinary sewage sludge digestion is suggested to increase capacity and cut costs.

7. Preliminary estimates which have been made indicate the construction costs of the anaerobic contact process for plants of 0.5 to 1.0 million gallons per day capacity are likely to be approximately one-half of those of trickling filter plants designed to accomplish a 95 per cent BOD removal on these wastes.

8. The operation and maintenance costs of the anaerobic process are estimated to be slightly greater than those of trickling filter plants.

9. The total annual charges of the anaerobic plants are estimated to be approximately 60 to 70 per cent of the cost of trickling filter plants.

10. The decision as between anaerobic and aerobic treatment for any particular situation involves a consideration of many local factors. Higher interest rates and property taxes with private financing are two important items.

11. A workable process has been developed which

appears to be sufficiently "rugged" as to absorb the usual variations in conditions likely to be experienced in the wastes from this industry.

12. A number of possibilities for further improvement in the process suggest themselves. There are also certain questions which must be answered to assist the industry and control agencies in their acceptance of the process in its proper application.

13. A program of additional research and development is recommended in the report further to improve the process and to answer certain of these questions. Some of these recommendations are:

- (a) Determine the effect of degree and type of mixing;
- (b) Investigate further the effect of hourly variations in flow, strength and temperature;
- (c) Study the use of other methods of separation and concentration to improve economy;
- (d) Determine effect of vacuum and degree of vacuum;
- (e) Investigate further the effect of temperature of digestion;
- (f) Study the questions of aerobic and supplementary treatment of the effluent, and the use of evacuated gas for combustion;
- (g) Conduct a number of supplementary investigations on such factors as the deoxygenation constant of the effluent, the bacteriological efficiency of the process, the removal of nutrients, the optimum concentration of solids in the system, and the possible use of oxidation-reduction potentials as a means of control.

CHAIRMAN AIKINS: It is very apparent that the past year's work has been very rewarding in improving this process and effecting further economy.

There is today a definite need for a more economical process for treating packing plant waste. The instances when meat packers are confronted with waste treatment problems are becoming more frequent. In most instances, this becomes a major problem because the necessary capital outlay is so great. Hormel has been confronted with such a problem at Austin. Mr. Fullen, chemist for Hormel, in studying this problem recognized that packing plant waste was relatively strong and relatively high in temperature, and he conceived the idea that because of these two characteristics, the waste may lend itself to anaerobic treatment.

His initial studies, which began in 1949 on a barrel scale, were enlarged in 1950 to the present pilot plant that Professor Schroeper discussed. As his process is developed and proves more workable, the early work done by Mr. Fullen becomes more important. Members of our committee, which include Solo of Swift, Stevens of Wilson, Gross of Morrell, Sturgis of Cudahy, Fullen of Hormel, and Teft of the American Meat Institute, were all familiar with the work that Fullen was doing.

Later, as a group, we concluded that his results were becoming more interesting from a purely technical standpoint and much more pertinent to the general problem of packing plant waste treatment.

Recognizing that the industry needed a more economical means of treating waste, we concluded that as a committee, we might be of real service to the industry by assisting in the further development of this process. We first deemed it advisable to have a recognized authority

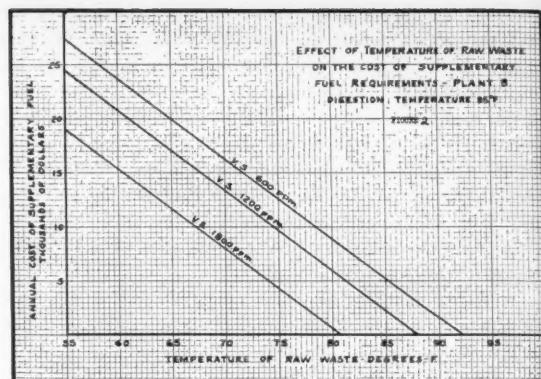


FIGURE 13

analyze all of the preliminary data and then advise the committee.

Professor Schroeper did this for us and his first report was very encouraging. We were granted funds for the past year's work.

All of the investigational work, including the early work by Fullen and the past year's research work, has shown that we now have a process that is capable of accomplishing satisfactory removal of BOD and suspended solids.

Furthermore, the process has proved to be sufficiently rugged to absorb the usual variations so characteristic of our industry. Also of importance to us is the fact that this pilot plant which has been described here, operates continuously day and night and it has operated for all practical purposes for approximately three years. In so doing, it handles the stronger waste during the week and the weaker waste over the weekend. For this reason, we as a committee feel that that pilot plant can be accorded a much greater, practical stature.

We are dealing with something that is practical and it is operating. Probably of greater importance to the meat packing industry is the fact that this process is more mechanical than the conventional anaerobic process.

In the early discussions, our committee and Professor Schroeper agreed that the available data should be applied in a tentative and preliminary way to the design of a large scale anaerobic plant, preferably of 500,000 gallons or 1,000,000 gallons per day. This was done, and these designs and estimates have been used to make a comparison with plants employing a conventional anaerobic process.

These preliminary estimates indicate that the construction costs of an anaerobic plant of this capacity, are likely to be one-half of those of the trickling filter plant. This fact alone can be of tremendous importance.

As a committee, we have followed the research work quite closely and we are in full agreement with Professor Schroeper's conclusion. We would, of course, like to see the process expanded to an all-plant installation. There is, however, no indication at present that this will be done in the immediate future.

Since we all recognize that further improvements can be made both in efficiency and economy, the committee and the Institute have decided to request the AMI Board for funds to continue the pilot plant work.

New Ideas Used in Storage Plant



R. J. EPSTEIN

AMERICAN COMMERCE IS witnessing a rapid expansion in cold storage space and I am happy to be here as the representative of A. Epstein and Sons, Inc., architects and engineers, who are most active in that expansion. Our organization has designed seven such buildings in the past two years, and I'd like to repeat the word "organization," because the

design of a cold storage project requires a team of specialists, qualified in each phase of construction. In fact, at A. Epstein's suggestion, I've brought along a "prompter," A. J. Sander, who heads up our mechanical engineering division and is very well qualified to discuss refrigeration design.

Six of the seven structures are one story, a discernible trend in the new construction of refrigerated space, as well as in all industrial construction. Numerous advantages are apparent in maintenance, in plant transportation, speed of handling, palletizing, shipping and receiving facilities, labor supervision, etc.

Although the provisions for defrosting, insulation, and prevention of frost upheaval differ in these buildings, leading to the conclusion that we don't know our own minds, actually, we do have positive preferences. However, it should be borne in mind that the selection of refrigeration and insulation, and to a lesser degree, construction, is sometimes dictated by our clients who may have been in business many years prior to the construction of a new facility. Various clients have had excellent service records with specific types of equipment and insulation.

tion so that our engineering staff does not always have a completely free rein in design.

Although our most recent design, that for the Stock Yards Packing Co. of Chicago, has just gone into construction, the Mid-South Refrigerated Warehouse Co. of Memphis, completed this year, has a number of design features that should be of interest.

The total area of the building is just over 100,000 sq. ft., of which 65,000 sq. ft., or 1,000,000 cu. ft., is designed to be operated at -20° F. Each of the large freezer rooms has two freezing tunnels adjacent to the vestibules, and each tunnel is large enough to accommodate a railroad car's capacity. Total quick-freezing capacity is 1,000,000 lbs. in 24 hours and the total storage capacity is 20,000,000 lbs. There are unloading facilities for five railroad cars and 20 trucks and the corridors permit rapid transfer to the freezer rooms.

The freezer area in this particular warehouse is entirely surrounded by corridor space, a feature that has worked very well in practice as well as theory. These corridors are desirable for movement of merchandise, as a handling space, and because they are reasonably well-insulated they assist in preventing outside moisture from collecting on the freezer doors. We have employed a vestibule type of entrance to the freezer rooms consisting of a pair of freezer doors and two pairs of double-swinging non-insulated "flapper" doors. These doors, I must confess, do not satisfy us and require periodic defrosting to prevent ice accumulation. The design of these doors has changed very little during the last 50 years and is, as you know, really a compromise between strength and insulation qualities. The office of A. Epstein and Sons, Inc., challenges all recognized door manufacturers, in fact anyone, to produce what we should perhaps call an opening-closer, for want of a better word, of a new and radical design.

The general construction of this building is almost

CHARACTERISTICS OF COLD STORAGE WAREHOUSES CONSTRUCTED RECENTLY

	Continental Freezers, Chicago	U.S. Cold Storage, Omaha	Mid-South Refrigerated Warehouse, Memphis	Snow, Ice, and Permafrost Research Est., Wilmette, Ill.	Chanute Air Force Base, Illinois	O'Hare Field Air Force Base, Illinois	Stock Yards Packing Co., Chicago
Area of Building—sq. ft....	200,000	150,000	100,000	10,000 (Laboratory)	15,000	4,000	24,000
Number of Stories.....	1	1	1	3	1	1	1
Minimum Clear Height....	20'-0"	18'-0"	16'-6"	10'-0"	11'-0"	11'-0"	12'-0"
Minimum Temperature	-20°	-20°	-20°	-77°	-5°	-5°	-30° in freezer. Also coolers.
Type of Construction.....	Reinf. Conc.	Reinf. Conc.	Steel and Concrete	Reinf. Conc.	Frame	Frame	Steel and Concrete
Type of Refrigeration.....	Unit coolers with ducts	Direct expansion coils and brine	Unit coolers with ducts	Direct expansion coils and special coolers	Unit coolers	Unit coolers	Direct expansion coils
Refrigerant	Ammonia	Ammonia	Ammonia	Freon 22	Ammonia	Ammonia	Ammonia
De-frost Provisions	Water	Hot Gas	No-frost solution	Heated Inorganic brine	Water	Water	Electric defrost
Type of Insulation.....	Natural Cork and Perlite	Rock Cork	Fiberglas	Natural Cork	Fiberglas	Undecided	Undecided
Sub-floor Provisions	Completely Ventilated Plenum	None, excepting heating pipes	Columns float. Vitrified tile pattern	Freezer space not at grade	Vitrified tile pattern	Vitrified tile pattern	Floor grid

entirely concrete on a structural steel frame. The main sub-floor is poured concrete on washed gravel fill, the corridor floors have storage space below so are of reinforced concrete, the exterior walls and the walls around the freezers are "tilt-up" panels, the office walls are poured in place, and the roof deck consists of factory made pre-cast concrete panels supported on long-span steel bar joists.

The pictures indicate the general method of construction for the tilt-up wall panels, 25 x 27 ft. x 6 in. thick, among the largest poured in the country. After edge forms were placed, an oil emulsion was spread on the concrete first floor slab, then wire mesh reinforcing and door and window frames were positioned. Concrete having an ultimate strength of 4,000 lbs. per square inch at 28 days was poured and steel-trowelled in the same fashion as a floor slab. Structural testing of this concrete indicated that the panels could be safely erected in about ten days

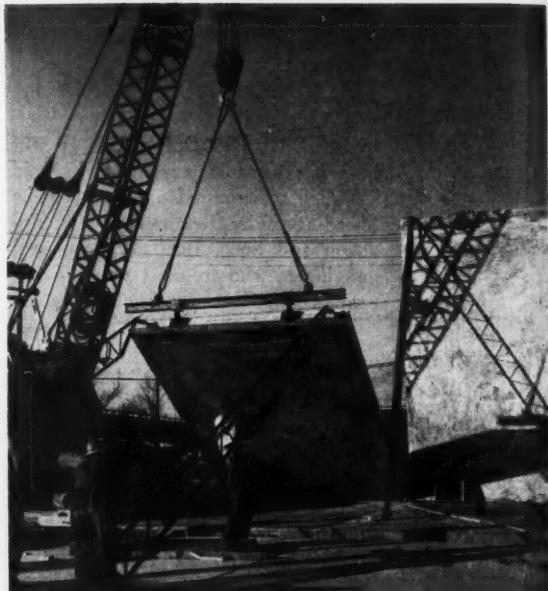


OF SPECIAL INTEREST is the construction of the vapor barrier connection between the sidewalls and the roof. A space left between the main roof deck and the deck of the surrounding corridor roof allowed the sidewall vapor barrier to be brought up and temporarily laid on the roof deck until the insulation on the latter could be completed. This vapor barrier of angier brown skin (laminated paper with aluminum foil) was reinforced with glasfab—a strong woven glass mesh.

and at this point the panels were tipped up at a rate of about one every 45 minutes. After erection, the structural steel columns were dropped into place in the joints between panels.

Early in the design stages of this project, it was determined that the freezer area should have a complete envelope of insulation so the interior columns were erected on a pad of Vibracork 8 in. thick. This necessitated the use of a steel grillage 4 ft. square placed just below the finished floor. The floor itself is a sandwich of 6 in. concrete and 8 in. Fiberglas surmounted by an additional 3 in. concrete wearing surface.

One of the major design problems in refrigerated warehouses is the prevention of floor and foundation upheaval due to frost formation in the sub-soil. Our organization designed a grid of vitrified tile, acting as air ducts



FINISHED PANEL being raised in place by a crane.

with gravity flow, laid in washed gravel below the sub-floor. Thermocouples, strategically located horizontally and vertically, are connected to a panel board in the engine room. If the temperature noted thereon ever drops below freezing, an additional source of heated air can be introduced into the ducts.

In the Mid-South Refrigerated Warehouse a dry-wall method of insulation was employed throughout. Over the vapor barrier surface on the walls a layer of Fiberglas PF insulation was installed between the horizontal girts



IN THE MID-SOUTH REFRIGERATED WAREHOUSE a dry-wall method of insulation was employed throughout. Over the vapor barrier surface on the walls a layer of Fiberglas PF insulation was installed between the horizontal girts or walers with a kraft paper convection barrier at each horizontal joint. A second layer was then installed level with blocking provided to receive the outer studs.

or walers with a kraft paper convection barrier at each horizontal joint. A second layer was then installed level with blocking provided to receive the outer studs.

Over the two layers treated wood studs were erected vertically and secured by blocking to the walers attached to the wall. A third and final layer of insulation was placed between these studs which then served as a base for receiving $\frac{1}{8}$ in. perforated masonite panels with H-shaped metal splines at the horizontal edges. This provided a completely vapor porous cold-side surface in accordance with advanced refrigeration practices for the construction of freezer buildings.

In the roof insulation there are five layers of 2-in. thick Fiberglas and these were only spot-mopped so that no unwanted vapor barriers would occur between layers. Roofing is of tar-saturated felts and pitch with a top



WAREHOUSE FLOOR top vapor seal by the Ellis Co. The right hand photograph shows Foam glass pads under the balcony columns.

coating of white marble chips to add some reflective insulation from solar heat.

The refrigeration system, of 300 tons capacity, consists of four rotary boosters and four reciprocating compressors, installed by the York Corporation. An induced draft cooling tower, purchased from Pritchard, is located on the roof and discharges into two vertical condensers. The liquid ammonia is circulated by four pumps to the various air units located in the freezers. A large suction trap is used to protect the boosters and also supplies ammonia to the pumps and an intercooler is installed in the discharge line of the boosters to cool the gas.

In each freezer are located Niagara forced air units, arranged for "no-frost" solution piping and liquid ammonia recirculation. The large freezers have duct work on the air units for air distribution through the room and are connected with by-passes for use in the freezing tunnels near the vestibules.

A separate pump is installed on each air unit to spray the "no-frost" solution over the coils. A liquid level switch in the sump controls a separate return pump which operates when the solution has absorbed sufficient moisture from the air. This pump discharges into an overhead main which returns the no-frost solution back to the concentrator and storage tank in the engine room.

The concentrator is steam operated and evaporates part of the moisture from the solution and the moisture content of the solution is automatically maintained by that concentrator. All liquid level switches are wired to a



THE CONCRETE TIP-UP WALLS were prepared with a vapor barrier designed to have a permeance not exceeding .01 perm. It was constructed of a laminated foil paper first applied under the horizontal treated wood girts or walers and then the space was filled in with similar foil. The surfaces were prepared with a sprayed-on asphaltic cement with all laps brush sealed.

warning light and bell located in the engine room.

Many of you will recognize the relative newness of the design of this building but we should point out that the theory behind that design is basically sound. Although the Mid-South plant has only been in operation since May, indications are that the operation will be practical and economical.

Dan R. Lewis, president, Dan R. Lewis Co., Chicago, and Mrs. Lewis.



Carl Lavin, purchasing agent, Sugardale Provision Co., Canton, Ohio, with Mrs. Lavin.



John Felsen, sales, Fredrick B. Cooper Co., New York, and George Gersony, president, Gersony-Strauss Co., New York.



Constructing a Plant With 'Precast'

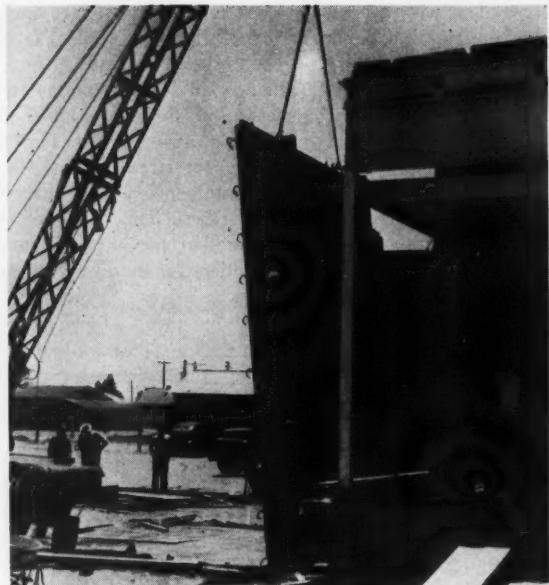


FRED HOMAN

I HAVE HAD SOME practical experience with precast construction, but I am not an expert in the field of engineering or contracting. It is my firm opinion that any building program requires the services of a competent engineer and contractor. This is certainly true in case of precast construction. Most people think of precast as a new type of construction, but the basic idea was developed almost 50 years ago. It has been only during the last five or six years that precast has come into wide-spread use. I think there are two reasons for this: One, the rising costs of construction have forced us to use new methods, and two, truck cranes are available in almost all areas which are capable of lifting weights of 20 to 50 tons.

The heavy crane is the key to precast construction. Our greatest problem in our original building six years ago was the raising of the panels. Precast construction at the present time is a highly individualistic business. Every contractor engaged in it has his own method and system, usually pretty well developed by himself. In spite of this, it is a practical building method today. Many of the following ideas partly developed in our original building are those of Elmer Penner of the building firm of Penner & Blohm, Fresno, Cal. I am sure there are newer and better ideas than some we are now using.

Precasting is at its best in large warehouse type buildings. In buildings of this type of over 4,000 sq. ft. with a flat floor suitable for a casting surface, precast can compete favorably with any type of building construction. The killing floor of a modern slaughter house is as difficult a type of building to construct as can be found anywhere, yet precast works well in it. In our original thinking we wanted to build the killing floor out of a strong, impervious, rodent- and vermin-proof material with a smooth sanitary finish on the inside—and at reasonable cost. Precast seemed to be the answer. Precast gives a reinforced concrete building. The interior surface can be troweled to make a smooth surface like that of a sidewalk. After five years we are well satisfied with our killing floor walls. They are essentially in the same condition as when we put them up and have required no maintenance except



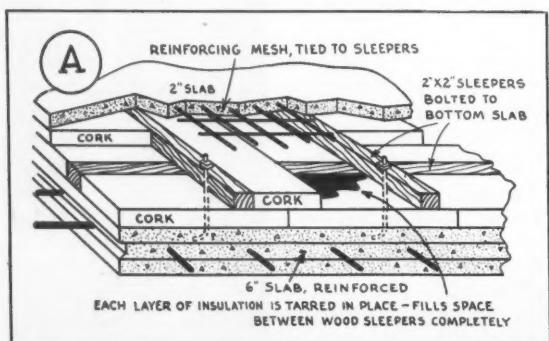
PHOTOGRAPH 1

routine cleaning. There are a few spots that have received mechanical wear and a few expansion cracks.

Since we had used precast successfully in our killing floor walls, we decided to continue to use it in our chill room and cooler walls. Again we were interested in lowering our costs and having a sanitary durable finish on the inside. From this thinking came the idea of putting the insulation down on the panel, then casting another thin slab of concrete on top of the insulation. The thinnest slab that was practical to pour was 2 in. thick. We decided it would be necessary to tie the 6-in. panel and the 2-in. panel together, so we used wood strips in the insulation with a $\frac{1}{4}$ -in. bolt tie between the inner and outer panels (see Figure A). First the base 6-in. panel is poured. While the concrete is wet, $\frac{1}{4}$ -in. x 7-in. bolts are placed on 6-in. centers. After several days the base panel is painted with two coats of one-half asphalt and one-half kerosene. The first layer of 2-in. insulation is dipped in asphalt and placed between the wood strips. The second 2-in. layer of insulation and wood strips is placed in the same manner and at right angles to the first. Later a 2-in. by 2-in. welded wire mesh is nailed to the top wood strips. Then 2 in. of concrete (pea gravel mix) is poured and steel-trowel finished. We have used cork, Fiberglas AE board, Palco wool and redwood bark board insulation. All are satisfactory. In the panels we are building now we are using redwood bark board. It is a new product and lower in cost.

Of course, you are interested in knowing how good a cooler this makes. Frankly, that is hard to evaluate. The first cooler and chill room are five years old. The walls look the same as the day we put them up. There are no wet spots or separation of inner and outer panels. The coolers are excellent holding rooms. Choice beef shows $1\frac{1}{2}$ per cent shrink the first day out of the chill room and 2 per cent after one week. This is due in a large part to good refrigeration. A 3 x 3 ammonia ice machine will hold these boxes containing 300 beef over the week end, and it shuts off part of the time.

In building the first cooler we dropped a panel through



our own carelessness. On breaking up the panel we found the cork insulation stuck like iron to the inner and outer slabs. From an engineering point of view the bolt ties through the insulation are not good practice, but from a practical viewpoint they seem to work all right in a 34° cooler. I believe that this type of panel can be built and raised without wood strips or permanent tie bolts.

Up to the present time we have built only cooler walls with 4 in. of insulation. I would not build a freezer with metal ties through the insulation. At the present time we are building some freezer panels with 8 in. of insulation and no bolt ties. In these freezer panels the blocks of insulation are dipped in hot asphalt and wood skewers are used to hold blocks together. The wire mesh extends temporarily from the top of the 2-in. panel to the top of the 6-in. panel. Once the panel is in place a concrete cove will hold the bottom of the 2-in. slab in place, and an inner reef structure will hold the top of the 2-in. panel against the insulation. The distance between the cove and top support should not be over 12 ft. We do not anticipate any troubles or problems with this method.

On walls over 14 ft. high we have used strong backs (see Photo 1) to minimize lifting stresses. The strong back is a steel "I" beam or two channel irons.

The strong back bolts (about 1 in. by 14 in.) are placed in the panel before it is poured. A large washer and nut are placed on the end of the bolt and this is placed under the intersection of two reinforcing rods. A plastic or cardboard sleeve is put around the bolt. The bolt and threads are well greased. Bolts are usually placed at one-third and two-thirds points of the panel.

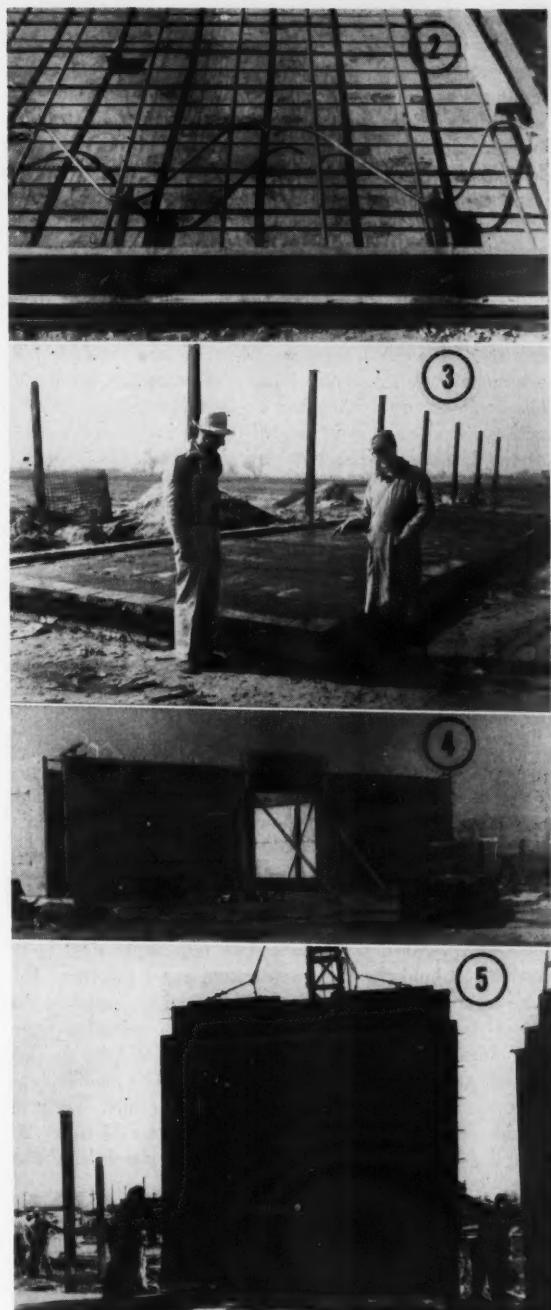
Before raising, the strong back bolts are removed and a large washer placed on them. Strong backs are placed on face of the panel with a 2 x 4 block under each end. The bolt is screwed back (between the two channels) into the nut imbedded in panel. Care must be taken not to tighten the nut too much or it will break the panel. The strong backs should be removed before panel reaches vertical.

Reinforcing steel (see Photo 2) is 1/2 in. on about 24-in. centers; this is on the minimum side.

Our hide house is 60 ft. by 120 ft. and 12 ft. high inside (see Photo 3). It has a panel wall made up of a 6-in. concrete base panel, 4 in. of Fiberglas AE board and a 2-in. inside panel. This building is typical of our cooler construction. All steel inside—the insulation goes up the side and over the top. In this building a 12-in. "I" beam spans the 60 feet between the columns, with two pipe supports in the center. The roof consists of 2 in. x 12 in. x 16 ft. wood purlins on 2 in. centers and plywood sheeting, 4 in. of insulation on the plywood, then 1 in. roof decking and a mop down felt roof. This building cost \$4.50 a square foot. It was intended to use refrigeration but we have not used it so. In summer we employ an evaporative cooler. This maintains a 30 to 35° temperature differential from inside to outside; e.g., 105° outside and 70° inside.

Hides shrink about 16 per cent, including 2-lb. tare. One-half of a 10-ft.-wide aisle down the center is wood float finished and the other half is wood float with carbondum added to topping. This makes a floor that is very non-skid, but which wears the men's boots out about three times as fast as usual.

We prefer steel columns, as they are small, simple and take high loads, and in some cases the reinforcing steel can be welded to them.



Lifting bolts extending from the top of the panel are $\frac{3}{4}$ in. bolts welded to a $\frac{5}{8}$ in. reinforcing rod. This is our "old method." Two by fours and bolt tie at top of panel holds panel in line temporarily. The bolt through the top of the columns is welded to the reinforcing rods of the outside panels.

Following is a description of the permanent method (see Figures B and C). Forms are placed on the inside and outside of the steel column and poured. In a new method, columns can be cast attached to outside panels. This works best in walls that do not have insulation. Cove is poured between bottom of 2-inch slab and floor. Two by four

blocks held the 2-in. slab from sliding down. This may happen in very hot weather. Insulation extends behind steel column and is patched in between panels before columns are poured. No provisions were made for expansion joints. About one-half of the columns cracked slightly on the outside. This could have been largely remedied by painting the edges of the base 6-in. panel with hot asphalt or asphalt emulsion. Columns can also be filled in with a gunite concrete machine. This is a quick, low-cost method where there are many columns.

Photo 4 is wall of the hide house. First the inner 2-in. layer of insulation is closed and the second layer will be patched in. Wood strips extend on 3-ft. centers. Reinforcing steel is welded together. Most of our outside walls are curtain walls, so our joining columns are small. We have welded the reinforcing steel—this is simple, strong and quick. A column is poured on the inside and outside of the insulation. The outside column extends 2 inches. This allows a slight misalignment of the panels from being detected. Reinforcing steel is on 18-in. centers, $\frac{1}{2}$ in. horizontally and $\frac{5}{8}$ in. vertically. We have used a considerable variation in the amount of reinforcing steel. We have raised about 100 panels, and all of them have gone up all right. A minimum amount has been $\frac{1}{2}$ in. on 24-in. centers, and a maximum of $\frac{5}{8}$ in. on 12-in. centers. Structural walls should be carefully engineered. The form for base 6-in. panel was 6-in. channel iron with an inverted $1\frac{1}{2}$ angle on the inside.

Photo 5 shows a hide house wall panel being set in place. This panel is 14 ft. by 16 ft. and weighs about $10\frac{1}{2}$ tons. I do not believe there are any greater hazards involved in this type of building than there are in ordinary construction. Personnel should keep clear and expect the panel to drop. Bolts in the face of the panel are for strong backs, but we found they were not needed. This indicates the idea of raising the insulation panels without an internal tie between the panels. Use four bolts with large washers to hold the inner and outer panel together. The wire mesh extends from the top of the 2-in. panel to the top of the 6-in. slab. Note the four rods extending from the foundation. Longer reinforcing rods will be welded to these and poured in the outer column. The panel size is determined by the lifting capacity of the crane. We have considered maximum panel size to be about 20 ft. by 20 ft. and 20 tons weight; however, larger panels can and have been made.

Photo 6 is a picture of the foundation being prepared for the setting of a panel. The foundation is 8 in. wide and has a 2 in. x 2 in. groove down the center. Reinforcing steel extends several inches out of the bottom of the panel. There is also a groove up in the bottom of the panel. Grout, a plastic mixture of about one-third cement and two-thirds sand, is heaped up on the foundation. Two strips of iron about 2 ins. wide by 6 in. long and $\frac{3}{4}$ -in. thick are placed on the foundation about 1 ft. back from the approximate edge position of the panel. Some unevenness of the foundation can be taken up by changing the strip size. When the panel is set down on the iron strips, the grout will squeeze up and down into the grooves. Excess grout should be removed and the joint smoothed. Long walls can be made of 8-in. thick panels. Reinforcing steel is extended 18 ins. to 24 ins. from the foundation. Corresponding holes are made up in the bottom of the panel.



PHOTOGRAPH 6

An old 105 mm shell casing makes an excellent form. When the panel is set, the holes are placed over the reinforcing iron. A small hole (out the side) is left at the top of the panel hole (see Photo 6A). Through this the panel hole is filled with grout. This makes a very strong tie. The panels are set about 3 ins. apart. Small loops of reinforcing iron extend from the panels. A reinforcing rod is dropped down from the top through the loop of both panels. The space between the panels is grouted in.

In a cooler addition the floor is 4 ft. above ground level. First a pad is poured where the panels join—about 1 in. lower than the bottom edge of the panel. The pads are large in this case because they will support a 6-in. steel column that will, in turn, support the meat and roof load inside the cooler. Reinforcing rods should extend from the pads into the footing. The footing is dug out in be-



PHOTOGRAPH 6A

tween the pads. Steel from the panel extends down into the footing. Concrete is poured in the footing and 3 or 4 in. up around the bottom of the foundation panel. Panels are held in line by bolt and 2 x 4's, and also the steel can be welded. It is a good idea to pour footing quickly before the panels get out of line. These panels are steel troweled and have a line design in the face. In the top of this panel is a short groove with cans in between. Our engineer calls these 2½-in. x 5-in. grout cans, but I call them beer cans. Steel extends from the bottom of the wall panel down into the cans. The disadvantage of the cans is that they require close and careful planning and setting. The panels are raised on ½-in. reinforcing rods extending from the top. We used a cable and two cable clamps for the lifting. There is a special clamp made for this work.

We have raised these panels in hot weather 24 hours after pouring, but it is not good practice. This is a good way to lift fence panels.

Photo 7 shows a plywood form for a panel. This one is set up on timbers. If the plywood is handled carefully an acceptable sanitary interior wall can be made. We use ¾-inch plywood. We used it for panels three or four times and then for doors, forms, etc.; although the initial cost is high, only about 6c or 7c per square foot can be charged to any one operation. The plywood is oiled very lightly each time it is used. One of the advantages of pouring flat is that the pour is only 6 in. thick and is of even density with no separation of aggregates. We use a 5½- or 6-sack mix for wall panels. We vibrate the concrete sparingly when it is poured. We have had some trouble with surface dusting when we have poured panels in hot weather—around 100°. We have found that weather, mix and temperature have a decided effect on panel quality and should be controlled as much as possible. Panels should be cured carefully—either covered or sprayed with curing compound. Waterproofing can be added to the concrete.

A 2 x 6 with lifting bolts is at the top of the panel. Two finished 2 x 3's are used for the side forms. The reinforcing steel extends between the 2 x 3's. A little concrete came out this space between the 2 x 3's and made a key. Groove blocks are between every other row of steel. There is a plywood cutout design in the center of the panels. These panels are freezer panels and are about 100 ft. from where they will be set.

Panels require ground space to pour (see Photo 8), particularly in the case of a slaughter house where the floors are uneven and not suitable for casting surfaces. Panels can be poured one upon the other—either on plywood or directly down on the concrete—depending on the surface required. In the case of pouring down on another concrete surface directly, a bond-breaking film should be sprayed on the bottom panel.

Photo 9 is a finished insulation panel ready to be tilted into place. This panel is 18 by 20 ft. and weighs 20 tons. Note the 6-in. base panel, two 2-in. layers of cork insulation, and 2-in. top slab. The top is marked off into 30-inch squares. This is decorative and if cracks occur they usually form on the lines. Very few cracks have formed on these panels. These panels are set up for an older method of raising; now they would be poured on the ground. Insulation is offset several inches in order to make a good tie between the panels. Note the groove in the foundation



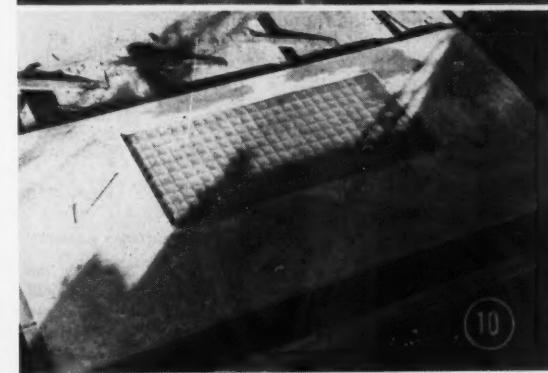
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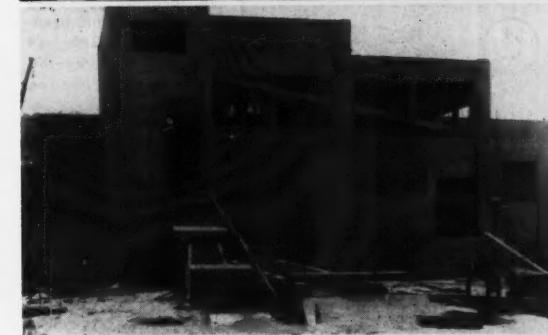
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9



10



11

panel. Also the ends of the channel iron door frames for future expansion. There are several advantages in putting the insulation down flat. It takes much less labor. After the insulation blocks have been dipped in hot asphalt they can be stepped on to insure a good, close fit. The weight of the 2-in. slab presses the insulation down on the panel.

Photo 10 is a killing floor panel with the glass laid in while it is flat. Small strips of wood are nailed to the plywood to space the glass brick. The glass bricks are put in place with an expansion strip of Fiberglas between the brick and the concrete panel. Standard glass brick reinforcing wire is placed on three brick centers. A few wires are attached to this reinforcing and later tied to two by fours. A mixture of one-half cement and one-half white sand is poured on the brick and swept into the joints with a broom. A little vibration will help fill the cracks. When the mix has set a little the joints can be smoothed with a round rod. The face of the bricks should be cleaned before the mix sets. Strong backs were used on each end, as this panel was considered a little fragile.

Although we have raised many panels, we have also torn out some and taken them down. After we were a year old we changed from California inspection to federal inspection and started to tear down part of our killing floor. We operated during the changeover, and this required delicate diplomatic maneuvering with the inspector. We took up the entire floor and changed the plumbing on weekends. In tearing down part of the killing floor we removed five panels and reused four of them. We had cut off the lifting bolts and therefore had to put cable under the panel. We chipped the corner connecting columns out with a small air hammer. With care, the panels are as good as ever. We had a 20-ton crane hook on to the panel. The concrete was chipped out of the columns and we cut the welded reinforcing iron. A very interesting point was that even though the panel weighed 8 tons the crane was unable to lift it with a straight lift. It required rocking the panel back and forth 30° several times to break the bond to the foundation.

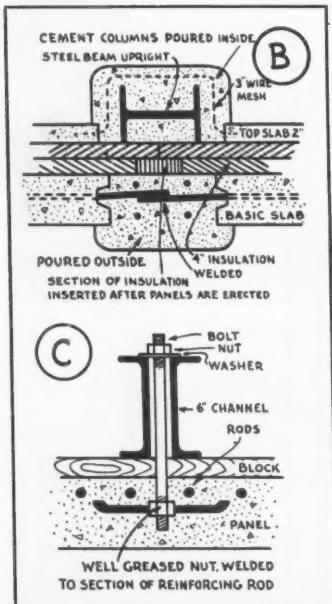
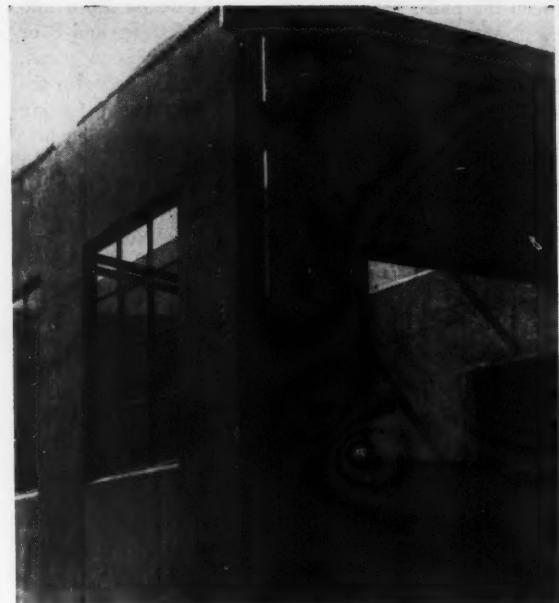


FIGURE B shows the method of joining wall panels. Figure C shows the method of attaching channels to panels to provide stiffening during lifting and handling. Panels under 14 ft. do not require this treatment but can be handled as cast.



PHOTOGRAPH 12

It seems to me there are tremendous possibilities in moving old panels for new expansion. I gave considerable thought in our new building to the idea of bolting the panels together and then bolting them to the steel column. I think this could be done without too much trouble, but I figure it would be easier and cheaper just to chip them out. Where the roof and inside load are supported on internal steel, it is a relatively simple matter to move a panel out.

Photo 11 is a rear view of the slaughter house, engine room panel, refrigeration condenser, small stock hoisting room, killing floor panels, gut room and condemned room.

Door frames are 6-in. channel iron; some corners on the killing room floor have a 4-in. angle. Precast small stock chutes and beef chutes were built. All windows are steel sash and cast in the panels.

The loading dock panel is 16 ft. high and 36 ft. long. It would be more practical to pour it in two 18-ft. panels. The office and dressing room have 4-in. panels (see Photo 12). They work out fine, but most building and fire codes will not accept anything less than a full 6-inch concrete wall. Los Angeles has a very complex precast code. It is well to check the code in your area before building.

The office panel has since been removed and the office made twice as large.

Photo 13 shows a lifting bar that we have used on most of our panels. Usually there are two bars used. The top of this panel has a 6-in. channel. The lifting bolt extends out of the 6-in. channel. These lifting bolts are welded to a reinforced rod that extends the full length of the panel. The lifting bar consists of two 4-ft. pieces of angle iron, welded together with a 1-in. spacer. A short cable loop runs through a hole in the spacers. The lifting bar is placed over the lifting bolt—three in this case. Heavy washers and double nuts are used. Nuts are used only one time.

With a newer lifting bolt arrangement a 2 x 6 is placed on top of the panel. A 1-in. x 14-in. bolt is used with a

nut and large washer. The bolt is covered with plastic or cardboard sleeve. Threads are well greased. There is a small reinforcing iron yoke that is put near the top of the bolt. The last reinforcing iron is over the bolt. This bolt will lift five tons safely. Usually they are placed 3 or 4 ft. apart. A small lifting lug is put under the bolt for lifting. The bolt can be removed. This is the same system that we used for strong back bolts, except that they extend vertically. Chokers are attached to the bolt in the lifting lug. This is a quick, flexible method.

Photo 14 shows the form for a corral fence panel. The panel is 6 ft. high, 14 ft. long, and 4 in. thick and weighs 1½ tons. A bolt with a short piece of reinforcing iron welded to it is used for lifting. A better method would be a ½-inch rod extending 1 ft. out of the panel and 4 or 5 ft. into it, and raised by the same method as the foundation panel. In this form a 4-in. x 12-in. footing is poured on the panel. On later panels we have left the footing off. The reinforcing is a heavy 3-in. wire mesh. The wood blocks leave openings in the panel. The one with the top blocks in place is at the rear.

We thought it would be necessary to have holes in the panels for ventilation, and I do think it is a good idea to have some holes, but most of the panels can be solid. The cost of the panels with holes is about \$3.50 to \$4 a lineal foot and solid panels cost around \$2.

The panels are set on two 2 x 4 blocks and the floor is poured under them for a footing. A little steel or mesh



PHOTOGRAPH 13

is allowed to extend out from the bottom of the panels for a tie. The panels are joined together in a line with two large washers on strips of iron and a ½-in. bolt. On the corner a shield and lag bolt tie can be used. A shield is cast in one panel and a hole is left in the other panel for a lag and washer. The hole is made by leaving a small piece of pipe in the concrete. Gates can be attached in many ways—by pipes, channel irons, or bolts cast in the panels. The panels are very strong and require no painting (see Photo 15).

A piece of expansion material can be put between the panels before they are bolted together. It is very easy to salvage or move the panels. In the case where a floor has been poured it is necessary to break away the floor footing with an air hammer. A flat concrete surface makes an excellent casting bed.

I know you are interested in cost, and I will give you some very general figures. It is foolish to quote costs without specific plans and without regard to the area in which the construction will take place.



PHOTOGRAPH 14

These figures apply to buildings of 4,000 sq. ft. of floor area or greater, and are sub-contractor figures not including engineering cost. Precast walls in place including columns will cost approximately \$1.25 per square foot of wall area. This same figure applies to foundation walls, but does not include footings. The cost of precast roof panels in place, including concrete purlins, but not supporting trusses is about \$1.25 per square foot. The roof panels should not weigh more than 5 ton. The cost of an insulated panel is about \$1.70 a square foot of wall area, plus the cost of the insulation. In the case of 4-in. redwood bark board at 11c per board foot, the cost would be \$1.70 plus 44c, or a total of \$2.15 a square foot. A very general figure for a cooler is \$8.00 per square foot of floor area. This includes foundation, fill, floor, walls, insulation, and roof, but no structural support for meat rails. Killing floor cost is about the same due to higher and more complex walls.

In building again, we would plan panels for future expansions, pour and control concrete carefully, pay close attention to details, columns and coves and expansion joints. All in all, it has worked out very well for us.

Precast panel construction has saved us time and money and it may be able to do the same for you. It is a practical building method and worthy of your consideration. It must be analyzed carefully, as must any building method, according to your geographical area, building codes, equipment available, contractor experience, etc.

Cost, alone, is not the whole story. Precast builds a first-class building and should be compared with methods that give the same type of structure. In some cases it may be too strong and good, but in the atomic age maybe this isn't such a bad idea.



PHOTOGRAPH 15



Scientific & Operating

"New Horizons in Research" by Dr. H. E. Robinson of Swift & Company — "Better Designed Equipment Helps Plant Operators" by Dr. Charles F. Niven, American Meat Institute Foundation — "A Positive Approach to the Food Poisoning Problem" by Dr. C. E. Gross of John Morrell & Co. — "Money Invested in Research Pays Off," a panel discussion with R. C. Munnecke, The P. Brennan Co., as moderator and Dr. D. M. Doty, Dr. J. R. Evans, Dr. B. S. Schweizert, Dr. L. F. DeBeukelaer and C. W. Everson of the AMIF as panel members.

A Look Into Tomorrow's 'Test Tubes'



DR. ROBINSON

THE RELEASE OF ATOMIC ENERGY through the co-ordinated team-work of hundreds of chemists, physicists and related scientists has focused public attention on the great part that science plays in everyday living. If we forget the fearsome implications of atomic warfare, it is easy to understand the potential contributions to better living through the tremendous power released in atom busting processes. That's the newest and most spectacular of scientific accomplishments but science is hard at work everywhere in industry, sometimes brilliant in its results, most often doggedly progressing.

The meat industry is served by half a dozen different kinds of chemists, bacteriologists, physiologists, pharmacologists, home economists, zoologists, nutritionists, physicists and other kinds of scientists. Some laboratories have highly integrated groups of 150-200 graduate research workers and total personnel serving research of 400-500 workers. Meat processing is a scientific business, as truly so as the great chemical companies themselves.

There are many important agencies for research as it applies to the meat industry. The U. S. Department of Agriculture through its research units at Beltsville, Md., its Bureau of Human Nutrition and Home Economics, and the support that it gives to meat and livestock research in the state colleges and experimental stations is certainly a leader. The American Meat Institute Foundation at the University of Chicago, which is supported by meat processors and by grants-in-aid for research from industry and the government, is doing a fine job for the meat industry.

The National Live Stock and Meat Board, which is

supported by livestock growers, meat processors and others associated with the meat industry, has done a wonderful job in supporting research which has shown the importance of meat, meat products and lard in the American diet. The industrial laboratories of the meat processing companies also have done an outstanding job in perfecting new products from meat, in producing economies and higher qualities through improved methods of processing and in increasing meat animal values by outstanding work on meat by-products.

Individual companies in the meat industry, as well as the National Live Stock and Meat Board and the American Meat Institute, have supported a large amount of research relating to meat animals, meats and meat products by private grants they have made to universities and colleges.

The past decade, through a combination of the research carried out by all the agencies just mentioned, has seen many outstanding changes in the profitable growing of livestock. Improved nutritional practices, beginning with new plant foods and better treatment of the soil, have resulted in better foods for breeding and growing meat animals.

The combination of improved control of disease and better nutrition results in faster growth and healthier, heavier animals. Good nutrition is the constant practice of the livestock feeder because it results in dollars and cents profits. There must be even more research on livestock breeding and feeding to bring about lowered production costs through better reproduction, a lowered incidence of disease and increased growth rates. The poultry industry actually has made the greatest strides in production ever known during the past ten years and has increased by several hundred per cent the amount of frying chickens consumed on the American market today. This was achieved by a combination of better breeding, feeding and disease control.

Research in the packaging and in the freezing of fresh meats and table meats such as bologna and sausage have created increased acceptance and demand for all such products. Research has shown the way in the use

of proper packaging materials for marketing fresh frozen meat cuts.

All table-ready meat items are pre-sliced and pre-packaged for self service in a rather large number of American markets today. Research has made possible this handy and economical method of marketing. Research on packaging materials and perhaps even more important upon machine production line methods of economically packaging a large variety of meat items must be rapidly expanded if the industry is to meet the continuing demand for self-service merchandising. The packages must be made as attractive and convenient as they are in all other types of foods.

There must be an improved economy or packaged meats cannot compete with standard items as now produced. Finally, the meat must be protected against changes in aroma and flavor and against shrinkage and discoloration for periods ranging from a few days in the case of fresh product to several weeks or months for frozen product.

The selection of packaging materials for fresh meats is based in part upon a functional requirement of the packaging material that must permit the free passage of air to the cut surface of the meat. The oxygen of the air reacts with the myoglobin of the fresh meat to produce oxymyoglobin which is a bright red color. This is the color which must be developed and maintained for best display of the meat. The amount of oxymyoglobin in the meat determines the color which ranges from a bright cherry red for beef to a delicate pink shade for veal or pork.

If a packaging material is used which materially restricts the passage of oxygen, the cut surface of the fresh meat will darken within an hour because of a change of oxymyoglobin in the superficial tissues to purple colored myoglobin. Upon extended storage this pigment oxidizes to an undesirable brown colored metmyoglobin.

Proper fresh meat packaging materials, which include fresh meat cellophane and fresh meat pliofilm, allow transmission of sufficient oxygen to maintain the desired color. Special fresh meat wrapping papers and special types of paperboard are recommended for separating slices or cuts of meat and for packaging where transparency of the packaging material is not a merchandising requirement. These air permeable films and papers also restrict the loss of moisture from fresh meats and restrict

the development of dark color associated with drying of the meat surfaces.

Packaging materials for bone-in fresh meats must be very resistant to puncture and tear because the sharp edges of cut bones contribute to package breakage. The stretchability of pliofilm is helpful in obtaining a compact package which is resistant to tear and breakage. However, there is need for shrinkability in films for fresh meats to assure a package which is free of voids between the film and the meat. There is much to be done.

Most consumer-sized frozen meats and frozen poultry are merchandised in one of the following packages: (1) printed waxed paper-board cartons with or without inner liners, (2) plain waxed paperboard cartons with or without inner liners, the cartons being overwrapped with a printed paper, film or foil, (3) wraps of film, paper, foil and laminates thereof.

There is considerable difference of opinion as to the need for transparency or windows in frozen meat packages. The current trend seems to be away from transparent packages and toward opaque packages. Once a frozen meat product has an established market the need



1. Wells E. Hunt, president, John J. Felin, & Co., Inc., Philadelphia; W. F. Schluderberg, president, Wm. Schluderberg-T. J. Kurde Co., Baltimore; F. M. Tobin, president, Tobin Packing Co., Rochester, and "Les" Stone, Geo. A. Hormel & Co., Austin, Minn.

2. Emil A. Schmidt, president, Schmidt Provision Co., Toledo, with Urban G. Focke, secretary; Henry Focke, manager of restaurant supply, and E. Sendelbach, sausage maker, all of William Focke's Sons Co., Dayton, Ohio.

3. R. R. Lewis, president, R. R. Lewis Co., So. St. Paul; P. O. Wilson, National Livestock Producers Ass'n, Chicago; C. J. Renard, vice president, Kennett-Murray & Co., Indianapolis, and H. L. Sparks, H. L. Sparks & Co., National Stock Yards, Ill.

4. Charles E. Sive, jr., salesman, Chicago, and C. Oscar Schmidt, president, Cincinnati, both of Cincinnati Butchers' Supply Co., with Richard A. Hawley, president, and Charles Hawley, treasurer, both of Meat Packers Equipment Co., Oakland, Cal.



for a transparent package to display the product is often overbalanced by the economy and protection from light provided by an opaque package.

Moistureproof cellophane, waxed paper and aluminum foilpaper laminates are extensively used as inner liners and over-wraps for paperboard packages of frozen meats and poultry.

An important limiting factor in the storage life of frozen meats is the stability of the fat. Frozen meats may be essentially free of oxidative rancidity after storage periods up to one year if stored at subzero temperatures and if they are tightly packaged in oxygen impermeable materials.

Such a package will be most effective in preventing rancidity of the fat if the air has been removed from the package and it has been hermetically sealed. This procedure is extensively used in packaging poultry. The poultry is vacuum packaged in an oxygen resistant modified saran bag and then frozen. If red meats are vacuum packaged before they are frozen, they must be at least partly frozen within a few minutes after vacuum packaging in order to assure a normal red color.

Packaging materials used for frozen meats include moisture-proof cellophane, pliofilm, polyethylene, saran, aluminum foil, waxed and plastic coated papers, plastic coated films and foils, laminates of the above materials and waxed paperboard cartons. While these materials are fairly satisfactory for frozen meats and frozen poultry, the ideal packaging material from the standpoint of protection has still to be developed for the food processing and distribution field.

In contrast to unfrozen fresh meats, cured meats retain their bright pink and red colors better in an oxygen impermeable package than they do in an oxygen permeable package. This difference in packaging requirements is in part brought about by differences in the chemical reactions of the meat pigments with oxygen as related to color.

The best display color of cured, smoked and table-ready meats is the bright pink or red color observed

1. George Krueger, partner; Mrs. Florence Krueger, George Krueger, jr., Barbara Krueger and Mrs. L. Pahl, all of Krueger Sausage Co., Chicago.

2. Harry Stubbs, plant manager, Calgary Packers, Calgary, Alberta; William F. Fried, vice president, Fried & Reineman Packing Co., Pittsburgh; Sam Katchen, Calgary Packers, and Samuel Alboim, partner, Feldman & Alboim, Montreal.

3. George Wilson, chief food technologist, American Meat Institute Foundation; Gordon A. Meyer, and George Schlereth, both of H. H. Meyer Packing Co., Cincinnati; S. C. Bolom, consulting engineer, Chicago, and C. F. Niven, jr., assistant director, American Meat Institute Foundation.

4. R. E. Sthen, president, John Kern & Son, Portland, Me., and Mrs. Sthen; C. D. Hurry and Charles F. Mayer, president, both of H. J. Mayer & Sons Co., Chicago.

5. Albert Lewis, president, Deerfoot farms Co., Southborough, Mass.; John Longenberger, merchandising, Grand Union Co., East Patterson, N. J.; John Milton, American Meat Institute, and William G. Andrews, general manager of meat merchandising, Grand Union Co.

6. Frank P. Adamski, technical director of yeast sales division, Jos. Schlitz Brewing Co., Milwaukee; Jack MacDonald, president, MacDonald Associates, Madison, Wis.; Emerson Moran, sausage consultant, Madison, and N. H. Breiby, mechanical supervisor, Oscar Mayer & Co., Madison.



immediately after cutting. Unfortunately these bright attractive colors change to shades of grey and brown when the meats are packaged in oxygen permeable transparent film and exposed to display case and retail store lighting.

These color changes are the result of oxidation of the pink colored nitric oxide myoglobin and nitric oxide myochromogen to metmyoglobin and other oxidized pigments. The reaction proceeds slowly in the absence of light and quickly in bright light, the light acting as a catalyst.

Research has probably done more for lard than for any single item in the meat industry. In the late 20's and early 30's, Swift & Company's research laboratory pioneered in the use of an anti-oxidant, gum guaiac. Prior to this epochal discovery, the lack of resistance to rancidity by lard made this vital product of little value as a raw material for shortening. The final acceptance of gum guaiac by the Bureau of Animal Industry paved the way for research on and acceptance of many new and better anti-oxidants today.

Lard today has excellent keeping quality and can be processed under the protection of an anti-oxidant to produce shortening materials which are equivalent or superior to the all hydrogenated vegetable shortenings. The many anti-oxidants and new methods of processing have helped increase the sales value of this vast commodity.

LEFT: Louis E. Kahn, executive vice president, and Cletus P. Eisen, production control manager, both of E. Kahn's Sons Co., Cincinnati, and Allan Braun, vice president, Braun Bros. Packing Co., Troy, Ohio.

CENTER: Oscar Johnson, superintendent, Albany; Harry Cooper, Rochester, and Henry A. Bernhard, sausage superintendent, Albany, all of Tobin Packing Co., Inc.

RIGHT: E. G. Weimer, special representative of American Can Co.; Harold Jaake, vice president, Oscar Mayer & Co., Davenport, Ia., and D. B. Craver, vice president, American Can Co., New York.

LEFT: Howard Rebholz, safety director, Rath Packing Co., Waterloo; Martin Cernetisch, safety director, John Morrell & Co., Ottumwa, and John Thurman, safety director, Oscar Mayer & Co., Madison.

CENTER: Post-meeting gathering around the new AMIF technique which combines reflective surface and air to insulate canning retorts and other equipment subject to frequent wetting. Infra red bulb helps to demonstrate the method.

RIGHT: William Manning, superintendent, Emmett Packing Co., Louisville; E. C. Pfaffhausen, Industrial Air Conditioning Systems, Inc., Chicago, and Horace Wren, treasurer of Emmett Packing Co.

of the livestock industry. But not enough, there must be much more research on lard.

Research has found a few new ways and means of utilizing the waste fats, tallow and greases of the meat industry for industrial purposes. One meat processor has made a specialty of valuable chemical substances used in the mining, metals, petroleum and other industries which are derived fundamentally from the fatty acids of so-called non-edible animal fats.

Another has pioneered a new venture in the industrial processing of such animal fats. A great plant has been constructed at Hammond, Ind., for the continuous chemical treatment of waste fats to produce valuable and essential industrial products. This is a great step in the modernization of the treatment of by-products of the meat industry.

It would be hard to find a more pressing subject for research than that concerning the potentially valuable product, tallow. Not nearly enough is being done to help pull this fatty material out of its perennial doldrums. So many stories have been written recently of the dynamic and miraculous qualities of new drugs derived from the glands of slaughtered meat animals that it seems almost unnecessary to mention the vital role that research in





the meat industry has played in improving our daily health, and toward winning the battle against disease: AACTH, whose concentration and medical utilization has been pioneered and promoted by the Armour Research Laboratories, is one of the great research accomplishments of this century. Cortisone, whose production to date has been almost entirely from the gall bladder contents of slaughtered animals, is a miracle drug for the treatment of arthritis and a number of other common afflictions.

There are at least 20 other well recognized medical materials such as insulin that help to alleviate and cure human ills that are derived from the organs and glands of meat animals. More research will produce even greater findings.

Almost all of some 20 known vitamins today were originally isolated from the livers of meat animals. The most recent and one of the most significant of the new vitamin discoveries was the successful isolation of Vitamin B₁₂.

Liver became popularized 25 years ago because of its demonstrated contribution to health and because it was the only known treatment for pernicious anemia. After 30 years of research, it was finally determined that the major factor in this value of liver against anemia was its content of Vitamin B₁₂. But the real importance of the vitamins, the high quality proteins, the minerals and fats which are present in meats and meat products, is their contribution to human nutrition.

In the last dozen years researches such as those carried out at the University of Wisconsin have so thoroughly demonstrated the outstanding nutritive qualities of meats that we can now add a greater reason for the first place acceptance given these livestock products in our daily meals.

Meat has always made the meal, because of taste appeal, because of satisfaction and satiety, and now the new and most important reason—because of its great contribution to better health and better living. Much more research should be concentrated on establishing more firmly in the public mind the unusual dietary virtues of meat.

The greatest problem in nutrition and preventive med-

1. J. D. Browne, sales manager, and Robert A. Morris, president, Ferguson-Lander Box Co., Aurora, Ill.; Wesley Hardenbergh, president, American Meat Institute, and W. E. Winans, packaging engineer, Armour and Company, Chicago.
2. Syd Sheff, president, Universal Beef Co., Boston; Roland Hill, president, R. B. Hall, Inc., Lynn, Mass.; Norman Appleyard, Jr., P. G. Gray Co., Boston, and Sam Averbuck, treasurer, Universal Beef Co.

3. Leon A. Van Akkeren, R. J. Buswell, and Louis Goretta, research chemists, and B. M. Shinn, head, nutrition research, Armour and Company, Chicago.

4. E. S. Holmes, president, John R. Daily, Inc., Missoula, Mont.; Andrew J. Schnell, Preservaline Manufacturing Co., Denver; Gordon Potts, vice president, Lindner Packing Co., Denver, and A. D. Curtis, president, Pueblo Packing Co., Pueblo, Colo.

5. A. J. Egan, partner, and R. M. Egan, both of Smith, Brubaker & Egan, Chicago; K. E. Wolcott, refrigeration engineer, Wilson & Co., Chicago, and George E. Hinchliff, Johns-Manville Sales Corp., Chicago.

6. T. J. Hickey, Los Angeles manager; D. G. Heugly, superintendent general operations; T. Heuk and D. O. Wycherly, Cudahy Packing Co., Omaha.

icine in the United States today has been said to be obesity. It has been estimated that more than one-fifth of the population of the United States over thirty years is overweight by 10 per cent or more.

Although obesity is not a disease in itself and its cause cannot be attributed to aging, it nonetheless has a strong influence on the course of certain diseases and is associated with the process of aging.

Overweight is especially important in the so-called degenerative diseases, that is, cardiovascular-renal diseases and diabetes. With the development of the antibiotics and other means of controlling infections, infectious diseases such as pneumonia have fallen off sharply as factors in mortality.

This combined with the advancing age level of the population makes degenerative diseases characteristic of middle and later life especially important factors in mortality, and it is in these diseases that overweight is an important factor.

Many studies have shown the adverse influence of obesity on hypertension, diabetes, heart disease, cancer, acute and chronic nephritis, cirrhosis of the liver, arteriosclerosis and toxemia of pregnancy. In surgery also, it is recognized that obesity increases operative risks and the rate of mortality. It has been shown in many cases that arthritis is more severe in the obese.

There is an increased instance of gall bladder disease, earlier appearance of varicose veins, more frequent fractures and a greater incidence of accidents in the obese. The importance of obesity as a complicating factor in these various diseases has been well recognized by clinicians.

Statistical evidence shows that the death rate of overweights from heart disease, and from cerebral hemorrhage, is 1½ times that of average weight, whereas in angina pectoris the difference is even larger. Surveys that have been made indicate a steady progression in average blood pressure occurring with an increase in body weight.

The most striking effects of overweight in disease are found in diabetes, the disease which has been termed "the fat man's folly." The death rate of overweights from this

1. L. J. Theilgard, industrial engineer, Chicago; R. G. Amos, midwest division manager, Chicago; Dale Kaufmann, chief chemical engineer, Buffalo; F. E. Hartman, industrial representative, Chicago, and S. A. Nystrom, industrial sales manager, midwest division, all of International Salt Co.

2. Donald Bruesewitz, cooler manager; Jack Baumgartner; Sylvester Diesel and Arnold Bruesewitz, vice president, all of Wisconsin Meat Products, Inc., Milwaukee.

3. Murray Bernstein, manager, Schmulke Bernstein Co., New York; Felix Epstein, president, First Spice Mixing Co., New York; Samuel S. Kwinter, manager; Aaron Kwinter, president, and Mrs. A. Kwinter, all of Kwinter "46" Foods, Toronto.

4. Mac McGinnis, Visking Corp., New York; I. Branner, president, Foremost Casing Co., New York; Bob Tartow, Standard Casing Co., New York; Joseph Delayo, president, Angus Packing Corp., New York, and Daniel Koss, secretary-treasurer, Standard Casing Co.

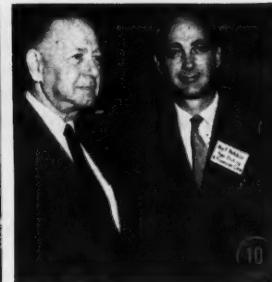
5. R. H. Marks, vice president; J. S. Wedeles, treasurer, and Ray Carroll, sales manager, all of Enterprise Incorporated, Dallas, Tex., and Hosea Vann, superintendent, Sunnyland Packing Co., Thomasville, Ga.

6. Alex J. McCrea, president, and Jack L. Mitchell, accountant, both of Ohio Provision Co., Cleveland; Jack Wainwright and Harold Wright of Allbright-Nell Co., Chicago.





1. J. B. Sabean, vice president, and Harold E. Smith, president, John E. Smith's Sons Co., Buffalo.
 2. Fred Bauer and Jacob Bauer, Boepple Meat Co.
 3. W. S. Shafer, vice president, Armour and Company, Chicago, and Lester I. Norton, NP president.
 4. H. A. Morgenstern, H. H. Meyer Packing Co., and Fred W. Stothfang, vice president, Cincinnati Butchers' Supply Co.
 5. B. E. Hiles, sales manager, and W. P. Benghauser, sales promotion manager, both of Aluminum Cooking Utensil Co.
 6. Mrs. and Hugo Bitzer, supervisor, Consolidated Packing Co.
 7. Robert Harvey, chief engineer, and W. Von Stoeser, vice president, Lectromatic Devices, Inc., Chicago.
 8. Mrs. and Mr. B. Edward Ryan, president, Ryan Packing Co.
 9. F. A. Kohlhas and O. H. Watson, Exact Weight Scale Co.
 10. Irving Sloman, president, Sloman Lyons Brokerage Co., New York, and R. F. Melchior, Agar Packing & Provision Corp.



disease is $2\frac{1}{2}$ times that of average weight.

Moreover, the margin between overweights and those of slighter build increases rapidly as the degree of overweight advances. Thus, among those who are actually stout, that is 25 per cent or more overweight, the diabetes death rate is more than eight times that of the average weight person.

Gall bladder disease is especially frequent in the overweight. Overweight also is believed to be a common factor causing degenerative arthritis and has been shown also to be a common occurrence in the development of hernia in men and a probable factor in the incidence of cancer of the uterus in women.

Even fatal accidents are more common among overweights, and their incidence varies directly with the degree of overweight. It is also interesting that the suicide rate is greater among overweights than those among average weight. The reason for this is not clear, but it has been suggested that possible psychological maladjustments related either to overweight itself or to defects associated with overweight may play a part.

These implications concerning obesity have been emphasized by more recent studies by the Metropolitan Life Insurance Co. They are concerned with individuals insured between 1925 and 1934, traced up to 1950. They tell a familiar story. Uniformly the death rates of overweights were potentially higher than normal.

In the aggregate, overweight men and women had $1\frac{1}{2}$ times the standard mortality. Most of the extra deaths were due to degenerative diseases of the heart, circulatory system and kidneys. Diabetes showed more than three times the expected mortality. In overweights, the mortality of cirrhosis of the liver was far above normal as was that due to gall bladder disease.

The obvious conclusion that can be drawn from these findings is that weight reduction is in order if the problems associated with overweight are to be avoided. It can be inferred from the extensive work that has been done on the subject of reducing weight that regardless of whatever other factors may be present weight gain is caused by an imbalance between food intake and energy expenditure.

It is difficult to predict the food intake requirement for any given individual. It must be remembered, of course, that a condition of imbalance can exist at ideal weight, overweight or under weight. If weight is to be changed by either gain or loss, either the food intake or the energy output, or both, require change in the appropriate direction. Various diets have been proposed from time to time to be used in producing a reduction of weight. All these diets call for a reduction in the amount of calories consumed.

Since proteins, vitamins and minerals are essential for normal metabolism, reducing diets should be adequate



LEFT: Alvin A. Schaffner, sales, and Bill Manning, jr., both of Preservaline Manufacturing Co., Flemington, N. J., and Bill Manning sr., superintendent, Emmart Packing Co., Louisville. CENTER: R. S. Karlenger, plant superintendent; W. B. Felton, chief engineer, Lincoln Packing Division, and Mrs. W. B. Felton, all of American Stores Co., Pueblo, Colo. RIGHT: H. Allen, Dallas plant manager, Geo. A. Hormel & Co.; J. L. Olson, vice president in charge of beef and pork division, Geo. A. Hormel & Co., Austin, and Rex R. Bailey, Doane Agricultural Service, St. Louis.

in these nutrients. In general, the portions of the diets that are reduced to a minimum are the carbohydrates and fat, although some diets permit an abundance of fat, apparently because their satiety value enables the reducer to stay within the restrictions of his low calorie food intake.

In some diets reduction of the salt intake is called for. Meat, since it gives appetite satisfaction and because it is a source of high quality animal protein as well as some of the essential minerals and vitamins, is of great value in reducing diets.

Of course, the most talked about research being done in the food industry today and particularly of interest to meats, is the process of utilizing ionizing radiation, popularly called "cold sterilization."

The Armed Forces are extremely interested in this subject since a solution to the current problems in this field could mean a great deal in furnishing more palatable meals for any expeditionary force. Rather considerable researches are being financed by the Quartermaster Corps.

The future of cold sterilization depends upon the outcome of a number of these researches yet to be done. First of all, problems in organoleptic changes in food must be solved. Unless irradiated foods are produced with the normal acceptability characteristics, it is very unlikely that the process will be successful. Where appropriate, the stability of irradiated foods under normal conditions must be adequate. Continued development work will undoubtedly produce better machine sources of radiation but it is fair to say at this time the sources available are sufficiently developed to meet many require-

ments. Further work should improve performance and reliability and reduce costs. A big question exists on the future availability of fission products.

Since the Atomic Energy Commission under present conditions is the sole source of these materials, much will depend upon the program that it undertakes to make sufficient quantities of fission products available for commercial applications. Their plans at the present are not clear but undoubtedly would be helped if problems such as undesirable flavor were solved. Demand for fission products in quantities would undoubtedly expedite their availability.

It is conceivable that if fission products are used for treatment of foods, food processing plants will need to be located at a reactor site. This could produce an obvious relocation of food processing units where the economic aspects will permit it.

What all this may mean to food industries today, of course, is a matter of conjecture. Canned foods might be expected to be remarkably improved since overcooking resulting from the heat processing needed to destroy spoilage organisms will be obviated. Canned foods probably would be cooked only to the degree determined by palatability considerations.

Other food items now having relatively short periods of acceptable quality may have this period extended. Meats, fruits and vegetables might benefit in this way from radiation treatment. Whether refrigeration requirements could be reduced or even eliminated is yet unknown and will depend upon the importance of factors of food deterioration not related to microbial action. Packaging adapted to the needs of the individual food product will undoubtedly play an important role in the success of such applications.

LEFT: Floris R. Mills, secretary; Charles H. Mills, and Mrs. Henry Rottersman, treasurer, Advance Oven Co., St. Louis. CENTER: Barry Moriarty; Don Moriarty, president, Moriarty Meat Co., Chicago, and Danny Moriarty. RIGHT: Carl Flicker, president, Flicker Packing Co., Scottsbluff, Neb., with son, Franklin, and Mrs. Flicker.



Better Equipment



DR. NIVEN

Design Pays

IN THE DECEMBER, 1952, issue of *Food Engineering*, a reply was made to an inquiry concerning the desirable sanitary features involved in the construction of plant equipment. I should like to read to you the 11 features enumerated in this short article and, as they are read, you might like to choose in your mind some piece of equipment in your plant—perhaps in the sausage kitchen—and judge for yourself how it would rate. May I suggest that you choose the stuffer, cutter, mixer, linking machine, or even a simple table, work bench, or meat truck. Here are the features as enumerated:

1. Equipment surfaces should be smooth.
2. Non-corrodible materials such as stainless steel, monel metal, glass, and the like should be employed.
3. Materials should be impervious. Metal piston rings and liquid seals should be used in place of leather rings and packing glands.
4. Equipment must be readily accessible for cleaning. Units must be easily dismantled with the simplest tools.
5. Inside corners should be rounded and not square. Outside rounded supports should be used in place of flat ones, since they hold less dirt.
6. Units should be free from dead areas and internal threads.
7. Equipment should be designed to keep dirt and lubricants from product.
8. Toxic metals such as lead, antimony, or cadmium should not come in contact with food products.
9. There should be no submerged product inlets or direct sewer connections.
10. Bearings should not be submerged in food products, unless constructed for easy and complete disassembling during cleaning.

11. Machine bases should be constructed to permit easy access for cleaning. Or, the machine should be completely sealed to the floors.

How did your piece of equipment rate? Do you feel that there is need for improvement?

This morning I should like to discuss with you, in somewhat general terms, why we should be interested in well designed equipment. Since my background and experience has been in the field of bacteriology you may surmise that the point of emphasis on this subject will be directed toward sanitation. This is correct.

But why should we be interested in good sanitation? Are we endangering the health of the consumer? Have we been responsible for any major epidemics among the consumers? Although we cannot claim that our hands have been continually lily-white, the public health records show that our industry has *not* been implicated in any disastrous epidemic diseases such as tuberculosis, scarlet fever, typhoid fever, dysentery, and other gastro-intestinal diseases that in years past have ravaged some of our allied food industries.

Admittedly, farm animals may harbor certain disease microorganisms that are transmissible to the human consumer. Among these we might mention *Salmonella*, *Brucella*, and also the little worm parasite, *Trichonella*. As the animals are received by the packing plant, some of them may harbor such harmful organisms and, in the processing of fresh meats, it is virtually impossible to rid the tissues of these organisms if they are present except for the *Trichonella*.

But the records again show that our meat foods are not of any real importance in the spread of these diseases among the consuming public and, even if they were, improved processing equipment probably would not be the appropriate solution to the problem.

No doubt the major reason for this good record is because virtually all meat foods are cooked by the consumer before eating, or else they receive a careful and efficient heat processing before leaving the plant. Also, we must give credit to the good inspection services rendered by the Meat Inspection Division and by other governmental agencies.

Among the cured meat items there may be danger of recontamination of the product with disease producing

1. Robert Berl, manager, Zweiglers, Rochester, N. Y., and Mrs. Berl, enjoying first convention.
2. Mrs. Milton Rosenthaler, sales manager, Victory Provision Co., Dayton, Ohio, and Dan L. Gruber, Milwaukee Spice Mills, Milwaukee.
3. Mrs. and Mr. Walter Windmeller, superintendent canned meats, The P. Brennan Co., Chicago.
4. Felix Cristion, Packers Management Engineering Co., Levittown, Pa., with Mrs. Cristion.



bacteria after heat processing. But salt and other curing agents are added to these meats in sufficient concentrations to prevent their growth in the finished product. This, we must admit, is a fortuitous situation.

We have neglected the dangers of bacterial food poisoning, especially *Staphylococcus* food poisoning. We constantly have this problem to contend with, especially among the cured meat foods, but the primary blame for this problem can be laid directly to consumer abuse. Here again, improved processing equipment from the sanitation standpoint would not be the solution to this problem.

Then, we may ask ourselves again, why should we be interested in improved equipment with respect to sanitation? The primary answer is plain and simple: *Economy*. A well designed piece of equipment, whether it be a stock pot or a cutting machine, should meet the requirements for durability, efficiency of operation, labor saving, as well as ease of cleaning. Where all of these requirements are met invariably the piece of equipment is basically simple in design and construction.

A major consideration we must keep in mind is the prevention or delay of spoilage of our product. Although we may not have to deal with any major health hazards we must contend with a large variety of harmless microorganisms that can grow in or on our product and eventually cause spoilage. The reduction in the initial contaminating load of these spoilage microorganisms will invariably increase the life of the product.

With the employment of our new streamlined curing methods and the production of a milder and more moist item these cured meats can no longer be considered a non-perishable food. Pre-packaging of these foods at the wholesale level has multiplied our problems many-fold with respect to the expected shelf life of these foods.

Although this practice has greatly enhanced consumer appeal, pre-slicing and packaging exposes more surface for bacterial contamination. Then the meats are placed in an enclosed package which tends to confine the surface moisture and create an ideal environment for microbial growth. With such modern merchandising methods, we must be doubly certain that our processing equipment and methods are well designed and executed.

When we began to deal with pre-packaged fresh meats our problems become even more acute. We cannot depend upon a heat processing to reduce the initial contaminating load and, in their handling, the surfaces of these meats unavoidably will be contaminated with certain bacteria that are able to grow fairly rapidly even as low as 32° F. These microorganisms (primarily *Pseudomonas*) eventually will cause surface slimes, taints, and discoloration of the fresh meats, especially when they are wrapped in oxygen permeable wrappers that tend to confine the surface moisture. Certainly, good processing equipment and methods will become paramount in the handling of such items.

Permit me to digress from the subject of discussion to stress the importance of temperature in the handling of both cured and fresh meats. A 5° F. difference in temperature may not sound very big to some of us but to the spoilage microorganisms it is a very big factor in determining their rate of growth. Under some conditions this apparent small difference in temperature may double their growth rate and will result in a several-fold decrease in the life of the product.

Another reason why we should be interested in well

Tom Wallace, Peters Sausage Co., Detroit, and Peggy Young, American Meat Institute.



Joe Kovoloff, district sales manager, Chicago, and L. L. Bing, vice president, both of The Adler Co., Cincinnati.



William W. Morgan, president, Arctic Engineering Corp., Chicago, and Harold B. Howe, president, Howe Ice Machine Co., Chicago.



W. C. Holbert, production manager, Geo. A. Hormel & Co., Austin, and C. R. Vann, owner, Ohio Natural Casing & Supply Co., Newark, O.



Charles Warmbold, The Preservaline Mfg. Co., Flemington, N. J., and J. H. Williams, sausage superintendent, Jones Sausage Co., Danville, Va.



designed equipment is to establish and maintain good public relations. Many of you must contend with a steady stream of visitors in your establishments. A neat, well-designed, nice appearing, and efficiently operating plant will certainly have a favorable impact upon these individuals and the stories they carry home to their meat consuming neighbors should be an important consideration to keep in mind. Just because we are dealing with various parts of slaughtered animals does not mean that our plant must be messy or untidy.

As owners and operators of meat packing establishments what can you do to achieve better designed equipment? First of all, considerable forethought should

be given by management in the purchase, fabrication, or replacement of a piece of equipment. Remember, the initial purchase price is not the only consideration for good economy.

A galvanized meat truck with riveted or rough seams may be a cheaper initial investment, but we may have to put up with this truck for a long, long time and endure costly maintenance and expense for cleaning and oiling to control excessive corrosion. In its life time even this galvanized meat truck will handle enormous quantities of product and its initial purchase price may be lost in its overall cost to the company.

Would it not be more economical to purchase a more carefully designed truck with rounded corners, with no raw welds or seams, perhaps made of corrosion resistant material, and one that can be cleaned effectively in a few seconds or minutes, and will need no costly mineral oil application employing costly labor? Is it sensible to fabricate a stainless steel table or chute but have raw, unpolished welded seams to be endured by the operating men and clean-up crew for years to come?

In this line we should not overlook the importance of design of such simple items as meat hooks, bacon forks, knives, stock pots, and pans. The design of all equipment, especially that which comes in direct contact with the product should be viewed with a critical eye.

Another thing that we can do is to make more use of the sanitarians in your plant if you employ such personnel. As a bacteriologist, it is my opinion that they deserve more prestige than they now enjoy, provided they are competent. If they are not competent they should not be employed. I do not wish to imply that we should be bored or pestered with reports from these individuals concerning bacterial counts on this or that piece of equipment. But more appropriately, the knowledge and experience of these individuals should be drawn upon concerning the desirable features needed in a piece of equipment before it is purchased or fabricated.

Even if you do not employ technically trained sanitarians you can make use of the suggestions offered by the cleanup foreman. After all, he is probably more familiar than you with the inherent difficulties encountered in the maintenance and cleaning of the processing equipment. It is feared that all too often we are guilty of placing an engineering monstrosity in the plant without due consultation with the sanitarian or cleanup



V. R. Rupp, chief chemist, Kingan, Inc., Indianapolis; Robert Peters, Roberts & Oake, Inc., Chicago; L. L. Lowe, car route sales manager, H. D. Paul, frozen food manager, and W. H. (Rusty) Coffin, general production manager, all of Rath Packing Co., Waterloo.

employees, followed with orders to keep it clean and in good operating order. Frustration, indeed!

It has been suggested, and I concur completely, that we may profit by the organization of some sort of industry committee to study and make recommendations pertaining to meat plant equipment design. You are no doubt familiar with the so-called 3A committee now functioning in the dairy industry. This committee is composed of representatives of the International Association of Milk and Food Sanitarians, the Dairy Industry Committee, and the U. S. Public Health Service. In other words, it has representatives drawn from the dairy industry, the equipment manufacturers, and the government. Its function is to formulate and recommend sanitary design standards in the fabrication of dairy equipment. The committee has no powers to police the industry but serves the purpose of bringing together those who are involved and interested to collectively solve the various sanitation problems confronting the industry. They have accomplished much in the few years of their existence.

Could we not profit by a similar organization in our own industry? Although the original basic stimulus for forming such an organization may differ from that which existed in the dairy industry this should not impair the many helpful services this group could render.

Perhaps the first service that such a committee might undertake would be to recommend specifications in general terms that are desirable in the design of any piece of equipment, especially concentrating upon those that are peculiar to our own industry. Following these duties the committee might then make thorough studies and present recommendations as to the best known design for specific pieces of equipment. In no way should such a group discourage the inventive ingenuity of the individual equipment manufacturers for new and improved designs. On the other hand, the equipment manufacturers should gain by having a more solid foundation on which to operate. They should profit by having a better knowledge of what is needed and wanted by packers.

Be that as it may, we as individuals in the meat industry should keep our eyes open for new and improved



FIVE BIG SMILES from S. J. Warren, Cudahy Packing Co., Chicago; Mrs. Warren; John Butorac manager, casing division, Geo. A. Hormel & Co., Austin, Minn., and Mrs. and Frank I. Ryan, manager, casing division, Cudahy Packing Co., Chicago.

equipment and methods in our respective plants. We are in the plastic era. In addition to wrappers and containers, some plastics have already met with success in some phases of our industry. More are bound to come which should at least partially accomplish the desirable feature of replacing wood and other porous

design of meat trucks and conveyors, perhaps with detachable chassis, and which could be cleaned mechanically, thus saving in labor and expense.

I am not a design engineer nor even a sanitarian. But I firmly believe that a stuffing machine could be designed, based upon an entirely different engineering

Left: Mrs. and Don Smith, advertising and public relations consultant, Wilson & Co., Inc., Chicago.

Center left: Aled P. Davies, director, department of livestock, AMI, and Henry J. Kruse, president, Seattle Packing Co.

Below: W. J. Farley, owner, Farley Sausage Co., LaCrosse, Wis., pins button on Mrs. Farley.



Above: Agnes Olsem, Manufacturers Co-operative Ass'n., Chicago, and A. L. Roth, purchasing agent, Krey Packing Co., St. Louis.

Left: C. J. Stewart, vice president, and J. W. Christian, vice president, both of Cudahy Packing Co., Omaha.

Below: John Moninger, AMI, and Doris Slater, administrative assistant, National Ass'n. of Food Chains, Washington, D. C.



Above: Alice Ropchan, The National Provisioner, and Stewart Washburn, senior engineer, National Safety Council, Chicago.

materials which are exceedingly difficult to clean and maintain in good operating order.

We should strive for more uniformity in the metals employed for equipment. If this accomplishes nothing else, it should reduce the complexity of the job for the cleanup crew, especially with respect to choice of appropriate detergents and cleaning methods.

We also should look ahead for radical redesign in certain pieces of equipment, especially with respect to labor saving devices. Perhaps we are ready for a re-

principle, that could be easily dismantled and yet would be as efficient as the stuffing machine we now employ.

Those of you who maintain an aggressive spirit and constantly seek methods for improving efficiency of operating, especially with respect to labor saving devices for operating, maintaining, and cleaning equipment and, at the same time, produce improved products with extended keeping qualities will certainly prove to be the ones who can enjoy a margin of profit superior to that now being experienced by the industry as a whole.

Teach Public About Safe Handling of Meat



DR. C. E. GROSS

THIS IS NOT a technical discussion and does not present new facts. Rather, it is planned to be a general discussion of the subject of food poisoning, especially as it applies to the meat industry. Then, some observations will be made which appear to have significance.

Is there a food poisoning problem in the meat industry? Before attempting an answer to this question it would be better to limit and define the field to be covered. In this discussion only food poisoning caused by the staphylococcus is to be discussed. Without doubt there is a staphylococcus food poisoning problem in the meat industry. In every year during the hot summer months there are a number of well publicized minor and major outbreaks. The reports from the U. S. Public Health Service over a period of years tend to show an increase in cases reported. This may be due to better knowledge, better methods of investigation and diagnosis and partly to population increase. However, people in general seem inclined to blame almost any "stomach upset" on something they ate. Too frequently they seem to feel it might have been a meat item.

On the other hand, the facts are that bacterial food poisoning is of very common occurrence and that in perhaps one-third to one-half of these cases a meat product actually may have been the responsible food. Ham is one of the most common offenders, closely followed by creamed meat dishes such as chicken-a-la-king, meat sandwich mixtures and poultry roasted with the stuffing inside.

The July 27 issue of *Time* magazine in the medicine section reviewed the 1952 report of the U. S. Public Health Service on food poisoning cases. A quotation would have a direct bearing on this discussion. It is,

"otherwise, the old standbys in the spoilage and upset-stomach routine were to blame: cream-filled pastries, ham, turkey, chicken and tuna fish salad."

Seldom are deaths associated with or do they result from staphylococcus food poisoning outbreaks; however, the potential hazard is there if persons with other complications such as severe heart trouble should become involved in such an outbreak. Often the numbers involved in one outbreak may be very high.

There are a number on record where several hundreds became severely ill. One among the 1952 crop was caused by ham and involved hundreds of persons. It would seem that there is little doubt of the fact that important outbreaks of staphylococcus food poisoning do occur—especially during the hot summer months.

Why are the products mentioned before so frequently involved? There appear to be good reasons. Meat products in general are excellent from the standpoint of human nutrition and a similar situation applies with that of the microscopic bacteria as well.

Bacteria grow very well in meat media including those bacteria that can cause food poisoning. There is one exception with respect to staphylococcus, however. Fresh meats such as beef steaks, pork chops and ground beef usually develop off-odors or bad appearance due to the action of harmless spoilage-type bacteria before the food poisoning bacteria get a chance to develop. On the other hand, cured meats provide a poor media for spoilage-type bacteria but a good one for the food-poisoning type of staphylococcus.

Unfortunately, often the growth of the food-poisoning staphylococcus does not produce any off-odors and may actually improve the color of the product.

The meat packing industry recognized this problem in the period 1937 to 1945 and through concerted action in the American Meat Institute arrived at recommendations for the handling of cook-before-eating and ready-to-eat meat products.

In May, 1945, a pamphlet¹ was prepared for distribution to distributors, retailers and purveyors of meals. The department of scientific research of the American Meat Institute issued at the same time a technical bulletin titled "Important Consideration Concerning Processing and Handling of Cook-Before-Eating and Ready-to-Eat Meat Products." The material in this bulletin served as an excellent guide for use by those producing these products. This bulletin was restricted for publication and circulation within the meat packing industry.

The various meat packing plants took full advantage of the availability of bulletins such as those published in May, 1945, by the American Meat Institute and along with contributions from their own facilities and the constant supervision of the inspectors of the Meat Inspection Division, cured and smoked meat products were and are being produced in such a manner that they are virtually free of any food-poisoning microorganisms.

However, the manner in which these products frequently are handled by retailers, restaurants, caterers and housewives is certainly without regard to the hazards involved and does not recognize the care and pampering the products have received by the producer. The mishandling is a result of carelessness and lack of knowledge regarding proper handling.

How do outbreaks of food poisoning harm the meat industry? For obvious reasons no actual figures are avail-



C. D. Jones, THE NATIONAL PROVISIONER DAILY MARKET SERVICE; Richard Rezanka, retired president, Miller & Hart, Chicago; Tony Tisnai, THE NP DAILY MARKET SERVICE; H. Edward Reilly, vice president, Miller & Hart, and Jack Tucker, THE NP DAILY MARKET SERVICE.

able, but it is likely that a large amount of money is spent each year investigating complaints, making financial settlements and preparing legal cases where unwarranted complaints or excessive demands are involved. There may be lower meat consumption during hot months and avoidance of or increased sales resistance to certain products by individuals due either to unfortunate personal experiences or just being careful.

What can be done to improve this situation? First the facts must be faced squarely—both among ourselves and before the public. Do we have a real problem that is increasing year by year and would it be worth the effort to find a solution?

It is my personal opinion that there are sufficient facts to indicate that such a problem exists and that it is a financial burden and that it impedes to some degree the expansion of the market, at least during some seasons. Also this problem will tend to become more significant as time passes.

Can anything be done about it and if so what would be some constructive suggestions? The major causes in our opinion are carelessness and lack of information among those who handle the products after they leave the processors' possession. This statement would seem to point out a remedy. Namely, provide information on proper methods of handling through an educational program.

Such programs are not new to this industry. The American Meat Institute and the National Live Stock and Meat Board have done an outstanding job of education and promotion based on the nutritive values in meat. This program was preceded by an intensive industry-supported research program which established the scientific background regarding the nutritional values of meat.

In the case of staphylococcus food poisoning a generous support of research such as is being done at the University of Chicago by Dr. G. M. Dack and by the American Meat Institute Foundation should be continued. There are several outstanding reference books recently published on the subject. "Food Poisoning," a revised edition published in 1949 by Dr. G. M. Dack,² and "Food Poisoning," by Dr. Elliot Dewberry,³ published in 1950 in England, are two outstanding examples. Dr. L. B. Jensen discusses the subject with relation to meat products in his book titled "Microbiology of Meats," second edition, published in 1945.⁴

A number of bulletins and circulars are available from the American Meat Institute Foundation such as Circular No. 3, December, 1951, "Bacterial Food Poisoning—Important Considerations in the Investigation of Customer Complaints."⁵ As pointed out earlier the practical information on how safely to handle cured and smoked meat products is available and has been made available to the industry by the American Meat Institute and its department of scientific research.

From this background of information, material necessary for an educational program could be easily developed. Educational programs have been used in this industry with respect to the nutritive properties of meat as mentioned before and this new phase of education in proper handling to prevent food poisoning might be integrated into this same program.

Information often appears that is inaccurate and misleading. The medical profession as a whole is apparently not completely informed nor is it entirely accurate in its interpretation of the data on hand. For example, during a

1. Albert Harman, owner, Harman Packing Co., Port Angeles, Wash.

2. H. H. McIntosh, midwest district manager, The Girdler Co., Louisville, Ky.

3. Wayne Randall, president, R. T. Randall & Co., Inc., Philadelphia.

4. Samuel Barlant, president Barlant & Co., Chicago.

5. J. G. Woolsey, dry sausage department manager, Armour and Company, Chicago.

6. E. C. Steiner, president, Kentmaster Manufacturing Co., Inc., Los Angeles.

7. Randolph A. Klokner, Chicago district manager, Vilter Mfg. Co.

8. Otto F. Raiman, Davidson Commission Co., Chicago.



recent severe heat wave the *Chicago Tribune*⁶ carried a front-page story that quoted an anonymous doctor of the city health department to the effect that any meat left out of the refrigerator more than 30 minutes might become unsafe for eating. Such advice certainly will help prevent food poisoning but also will reduce the sale of meat in hot weather. Accurate and complete information for the public on how safely to handle foods in hot weather is badly needed.

One phase of an educational program should reach the professional groups such as doctors, home economists and public health officials. Another phase should reach the general public and in particular the housewives, service and other clubs and the educational institutions.

Still another phase could be directed toward the public food serving groups and the distributors and retailers of meat products. Local health ordinances and inspection services that are sound in fact and properly administered will help eliminate abuses by meat retailers, restaurants and catering services. However, the general public needs the facts too.

Schools, service club groups, women's clubs and cooking schools would appear to be ideal groups to reach with simple, factual, positive information on how to prevent food poisoning through proper handling. The home economics divisions could be very helpful on this as they have been on nutritive values and proper cookery methods.

When the homemaker is reached a dual service will be

performed since she is responsible for the family and very frequently for public group feeding in connection with church, charitable and character-building organizations. The preparation of food for large scale public feeding is frequently in the hands of non-professionals and each year many outbreaks of food poisoning result. Lack of proper equipment and more especially lack of knowledge of the hazards involved are responsible for disastrous results.

The industry could be protected by stressing the facts that meat products are premium products protected to the utmost by the processor and they should have similar care by everyone later handling them so that they give the maximum of satisfaction to the final consumer.

If we stop to look at a similar program in another segment of the food industry, the possibilities of success can be better appraised. Anyone who is of middle age can recall the conditions in the canning industry when acceptance was not too great and many fallacies and misunderstandings by the public impeded full acceptance.

An industry-wide program by the canning industry, National Canners Association and the can manufacturing companies, has almost completely overcome any resistance to canned foods today and has been done through an intensive and continuing educational program.

What are the facts that the public should know in order to prevent food poisoning? There are three major points to keep in mind.

First, the food must be contaminated with a food-poisoning type of staphylococcus. Second, it must be exposed at a favorable temperature for the contaminating organism to grow. Third, it must be exposed at the favorable temperature for a period of time long enough so that very large numbers of the food-poisoning staphylococcus can develop.

Any further information would consist of amplification and explanation regarding these points. For example, the contamination can come about in a number of ways. Handling such as mixing with the hands and slicing with a knife that may be contaminated are typical examples. Temperatures that provide suitable conditions for growth lie in the range of 50° to 120° F., although there is still



George E. Hinchliff, Chicago district manager, Johns-Manville Sales Corp., Chicago; O. G. Mayer, Jr., executive vice president, and Oscar G. Mayer, president, both of Oscar Mayer & Co., Inc., Madison, and Roy Stone, American Meat Institute.

some argument as to the exact point at which the extremes should be set.

The time element depends upon the level of contamination and how favorable the temperature is; however, within the range of temperatures given above it may be set at from 5 to 24 hours. In general the staphylococcus must grow under such conditions that very large numbers develop in a relatively short time. In considering the time and temperative factors it is well to remember that it is the temperature of the food itself that is involved and not necessarily that of the room or the refrigerated area.

Large amounts of food tightly packed or wrapped and placed in an insulated container such as a fibre board box may take many hours or even several days to reach a safe temperature even though placed in a refrigerator. This type of handling has been found to be the primary cause of difficulty in some large outbreaks at group picnics.

When large groups handle food the danger of contamination is greater and frequently the food has not been cooled promptly. A typical example of extreme mishandling might better illustrate the point. A considerable number of hams was baked in a normal satisfactory manner. When baking was finished they were taken from the oven to cool. When cool enough to handle they were boned and sliced as time was available from other duties. This operation took a number of hours and several people were involved.

When slicing was completed the slices were bundled together and wrapped in waxed paper and placed back in the original fibre board boxes in which the hams were delivered. They were then placed in a walk-in cooler which was badly overcrowded. Two days later at a group picnic the harvest was reaped. This points out some generalities in food mishandling that appear to be obvious. On foods that are handled after cooking, special attention is needed to prevent contamination. They should be promptly chilled and held under adequate temperature conditions. Keep in mind by chilling the fact that the product itself must be chilled—it is not sufficient to just put it in a cooler or refrigerator. We must be sure the product temperature drops as rapidly as possible.

Many other foods than meat may cause food poisoning if mishandled. The general facts about food handling and mishandling are the same regardless of the type of food. If the public can be sufficiently informed on proper handling of food, the potential hazard of food poisoning



FRONT ROW: Cornelius Noble, president, Noble's Independent Meat Co., Madera, Cal.; R. A. Nebergall, director, D. E. Nebergall Meat Co., Albany, Ore., and Wick Stephens, western division, American Meat Institute, San Francisco. Back Row: Fred Homan, president, Sierra Meat Co., Fresno, Cal.; H. Clay Daulton, livestock producer, Nobles Independent Meat Co., and D. E. Nebergall, president, D. E. Nebergall Meat Co.

from any food will decrease. This will reflect to the credit of the meat industry because in any outbreak meat seems to come under suspicion.

Now consider a phase closer to the individual packer—not what should be done in the future but what a packer should do if confronted with a complaint of food poisoning now. This matter has been discussed at other meetings but a review at this time would be worthwhile also. There are several points of major importance.

The first is to act promptly and if at all possible to secure samples of the meat and other food that might be involved so that a laboratory examination can be made of the suspected items. These samples should be stored under refrigeration until packed for shipment. They should also be shipped under refrigeration conditions sufficient so that the samples reach the laboratory in an unchanged condition.

The second is to act promptly to secure as much information as possible about the nature of the illness, foods that might be involved, and how the various food items were prepared and handled. The third concerns the investigator who must be careful to avoid antagonizing people who are or were recently ill. He must convince them that he is trying to find the true cause of their illness—whether it be meat or some other item.

If possible, he might explain to them some of the circumstances that may contribute to food poisoning outbreaks. For a more complete and detailed explanation the American Meat Institute Foundation has a bulletin avail-



FIRST ROW: Ron Wright, Toronto; Dick Le Forge, Toronto; Bill Zeitz, and Boyd McRae, both Chicago. **Second Row:** Vern Berry, Irving Zeiler, and George Liddell, all Chicago. **Third Row:** Jack Kay and Irwin Martin. **Fourth Row:** George Foster, Al Duckett, Toronto, and Frank Pemberton, Toronto, all of Wm. J. Stange Co., Chicago.

able titled "Bacterial Food Poisoning. Important Considerations in the Investigation of Customer Complaints," issued as Circular No. 3, December, 1951.

The speaker would like to acknowledge at this point the cooperation and constructive help and suggestions of Drs. C. F. Niven and J. B. Evans, of the American Meat Institute Foundation, Division of Bacteriology.

In summary, it has been shown that there is a staphylococcus food poisoning problem in the meat industry. Meat products, as they leave the processing plant and are delivered to the purchaser, do not cause food poisoning.

It is subsequent handling by others that brings in the potential hazard of food poisoning. Such mishandling is believed to be due to carelessness and lack of proper information on how to handle these meat products to prevent any possibility of food poisoning.

It is suggested that we should face this problem squarely and consider the possibilities of an educational program to get the simple facts concerning proper and safe handling of meat products across to the trade, professional people and the public.

The outstanding success of such a program on the nutritive qualities of meats suggests a similar approach.

Meat products are wonderful eating, nutritious and safe from the staphylococcus food poisoning standpoint if we remove this potential hazard of later mishandling by a positive, simple program of information on how to handle them to keep them safe.

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7. Private Communication from American Meat Institute Foundation, Division of Bacteriology.



1. Harry K. Lax, F. C. Rogers Co., Philadelphia.

2. Lee J. Kenyon, president, Preservaline Manufacturing Co., Flemington, N. J.

3. Dolf May, Eagle Beef Cloth Co., Brooklyn.

4. H. H. Bigelow, Chicago manager of Fuller Brush Co.

5. Francis A. Yost, construction engineer, Pittsburgh Corning Corp., Pittsburgh.

6. S. C. Freedman, president, Dirigo Sales Corp., Boston.

7. Max Denisman, sales manager, Wass Food Products, Co., Chicago.

Money Invested in Research Pays Off

Moderated by Robert C. Munnecke, president, The P. Brennan Co., Chicago, the panel consisted of five staff members of the American Meat Institute Foundation: Dr. D. M. Doty, Dr. J. B. Evans, Dr. B. S. Schweigert, Dr. F. L. DeBeukelaer, and C. W. Everson.



DR. DOTY



DR. SCHWEIGERT



DR. DeBEUKELAER

MODERATOR MUNNECKE: I'd first like to comment that the work at the American Meat Institute Foundation is of real practical importance to every meat packing company. We will be discussing several of these research developments with you today in terms of what this work means to you. To be even more specific, contributions by the meat industry to the Foundation already have resulted in many discoveries that are "paying off" for our industry. While many important basic research studies are being conducted at the Foundation, problems of immediate practical interest have been selected for discussion here today. Dr. Evans, what are some of the bacteriological problems you fellows are working on?

EVANS: Some of the most interesting problems are those that come from companies having serious spoilage problems. They are interesting because we never know what will come in next; we need to solve them immediately if not sooner, and figuring them out frequently is like solving a detective story. They also may be rather frustrating because the samples that arrive at the laboratory often are in very bad shape and the information given us may be sketchy or inaccurate. Many times we would like to dig much deeper into these problems. However, a number of our research projects have developed from service problems that warranted more basic bacteriological study.

DE BEUKELAER: Give us some examples of some of these important service problems.

EVANS: The most frequent problem still is the problem of discoloration of cured meats such as this sausage with a green core.

MUNNECKE: Would it be dangerous to eat such a product?

EVANS: No, a color-blind individual could eat and enjoy this product just as I am doing now. Unfortunately, the green color is not chlorophyll. If it were, we might be able to sell the sausage as a premium product. Actually, the organisms causing this greening are closely related to the lactobacilli that are important in flavor development in summer sausages and some cheeses.

MUNNECKE: What is the story on these jars of pickled pigs' feet?

EVANS: These jars would meet consumer resistance because of poor color. The discoloration is a "nitrite

burn" resulting from too much nitrite in the jars at the time vinegar is added. However, the pickled pigs' feet still taste O. K.

MUNNECKE: Do you fellows eat all of the supposedly spoiled products that are brought in to you?

EVANS: No, now here is some ham that looks pretty good, but as those of you know who heard Dr. Gross this morning, food poisoning staphylococci actually protect the red color of cured meats. This ham is heavily contaminated with such organism. If any of you people in the audience so desire, you may taste this to see if there is any off-flavor, but you do so at your own risk. I prefer to eat this green bologna or these pickled pigs' feet. Also, if some of you want to taste some of these pigs' feet or this bologna, we will have additional samples in the AMIF booth.

MUNNECKE: What do you fellows do other than "trouble-shooting"?

EVANS: Well we have eight bacteriologists working on a variety of research problems such as radiation sterilization, bacteriology of ham curing, metabolism of food-poisoning staphylococci, and so on. These projects will be of long range value to the meat industry. Some of our completed projects are already "paying off."

MUNNECKE: That's what we like to hear. Give us an example.

EVANS: Nutritional studies on the greening bacteria have enabled us to detect these organisms in two days whereas formerly it took as much as five days. Every day saved in detecting these bacteria may avoid loss of an extra day's sausage production.

DOTY: Evans, your studies on heat resistance of greening bacteria are also very important.

EVANS: In fact, as a result of this work, we have been able to recommend processing temperatures that will eliminate many greening problems and prevent their recurrence.

MUNNECKE: Prevention of spoilage problems is certainly of more economic value than eliminating them after they happen.

EVANS: Yes, and consumers have a long memory. A bad batch of sausage may cancel out thousands of dollars of consumer good-will that has been built up through an expensive advertising campaign. A uniform-



LEFT: W. C. Mahoney, G. H. Krohn, J. V. Zbornik, V. Novak and C. L. Farmer, all of casings division, Cudahy Packing Co. RIGHT: Leonard Ehret, Dwight Rissir, Dave Miller, J. A. Bratton and Hewitt Grove, all of Elkhart Packing Co., Elkhart, Ind.

ly good product is the best advertising in the world.

MUNNECKE: It occurs to me that maybe we should budget some of our product control and basic research work under our advertising budget.

EVANS: I'd like to point out right here that not all the problems are due to bacteria. Everson, tell us about some of the problems handled by our service laboratory.

EVERSON: The problems have been many and varied and the solutions just as varied. Some of the factors responsible for off-quality products have been too much or too little of a given ingredient—or even the ingredient itself. In other cases, some step in the process has proved to be at fault. In one case the lack of color in the center of the ham was finally shown to be the result of someone leaving nitrite out of the pump pickle. This mistake cost the packer a day's production of canned hams. To avoid a repetition, this packer has us analyze every batch of pickle before it is used. I could go on, but perhaps this will give you an idea of the type of thing we find and how important these problems can be to the packer concerned.

SCHWEIGERT: I'd like to interject at this point that we have a program under way to investigate the whole question of color in hams and bacon. We hope to find how and why the "cured" color develops.

MUNNECKE: We certainly would like to know more about the color problems with fresh and cured products, Schweigert. To get back to the service laboratory, Everson, it sounds as if you cover a broad area in problems handled. Is the service laboratory equipped and qualified to handle all these problems?

EVERSON: Actually the entire staff of the Foundation is available for consultation and assistance, and we don't hesitate to call upon another person's experience since a quick solution usually is essential. When a packer is having trouble, he understandably wants an answer as quickly as possible—preferably yesterday.

MUNNECKE: What can a packer in trouble do to hurry up your solving the problem?

EVERSON: He can do two things: First, get a sizable sample of the product to us in good condition; and second, he can supply us with complete, accurate information concerning the product and the problem. All too often we get a couple of ounces of badly decomposed material with a letter saying, "Please analyze and send results immediately."

MUNNECKE: Besides investigation of problems, what



other functions does the service laboratory perform?

EVERSON: The bulk of our effort is directed toward far more routine analytical work for both product improvement and control. During a recent 12-month period, the service laboratory analyzed nearly 7,000 samples from 300 companies. These 7,000 samples required some 30,000 individual determinations. I wish I could tell you how much this service has been worth to the industry. We do know of cases where a few dollars spent for an analysis has enabled a packer to save thousands of pounds of product.

SCHWEIGERT: Everson has omitted the service his



Chet Dold, manager, meat packaging division, Milprint, Inc., Milwaukee, and Mrs. Dold.



E. J. Drobka, production manager, and H. E. Reilly, vice president, Miller & Hart, Inc., Chicago.



Fred Wetzel, sales manager, and Al Jourdan, president, both of Jourdan Process Cooker Co., Chicago.



T. R. L. Sinclair, executive vice president, and Alex Spink, safety director, both of Kingan, Inc., Indianapolis.



group renders the rest of the Foundation. The fact that the service laboratory does analytical work for the research groups greatly accelerates the progress and effectiveness of our research teams.

MUNNECKE: The Foundation certainly is doing a fine job in helping us solve our immediate problems. How about more extensive studies on product and processing improvements?

DOTY: We're investigating two new methods for sterilizing meats or meat food products—radiation and high frequency heating. Our radiation studies were started



LEARNING—L. J. Pircon, right, American Meat Institute Foundation, demonstrates sensitivity of end point control element for dry rendering to H. C. Dormitzer, general superintendent's office, Wilson & Co., Inc.

WAITING—D. M. Doty, AMIF; Henry Tefft, AMI, and Dr. F. L. De Beukelaer, AMIF, pause for a few moments' rest during busy convention day.



CONVERSING—Engaged in what appears to be a deep subject are Don Fisher, foreman, Conner Prairie Farms, Noblesville, Ind.; Paul Williams, livestock & marketing Assn., Wapakoneta, Ohio, and Tilliman Bubenz, manager, Conner Prairie Farms.

DECORATING—Betty Stevens, The National Provisioner, pins safety button on John Thurman, safety director, Oscar Mayer & Co., Madison, Wis., in front of packer's safety exhibit.



only recently and results to date do not justify any lengthy discussion at this time. The big problem here is to find out how to prevent the undesirable changes in color, odor and flavor that develop when meat products are sterilized by beta or gamma radiation. We're much farther along with our studies on high frequency heating. In fact, I have here some samples of whole "sterile" boned ham and some "sterile" luncheon meat processed by this method that I would like for you to taste. I should like to point out that these products are commercially sterile, not pasteurized. In other words, they would keep (in a container) without refrigeration. How do you like the taste of the products, Mr. Munnecke?

MUNNECKE: These products have excellent color and flavor. There is no "burnt" or overcooked taste



POINTING—to data about the meat-type hog is Andrew Kowzan, plant superintendent, Du Quoin Packing Co., Du Quoin, Ill. Charlie Commean, production supervisor of the same firm, looks on.

comparable to that usually found in a "sterile" 6-lb. luncheon meat commercial pack. The texture of both products is satisfactory. I like the "chewy" texture of the luncheon meat in contrast to the softer texture of our present commercial packs.

DOTY: Your comments check completely with the results of taste panel evaluations of these products in the Foundation laboratories and at the Quartermaster Food and Container Institute.

MUNNECKE: If the products have been heated high enough to sterilize them, why isn't there an overcooked taste?

DOTY: To explain that, we need to recognize that changes occurring during processing are dependent on both time and temperature. In regular steam retort processing the cans must be left in a retort or water bath for a long time to allow the heat to penetrate to the center of the can. Thus the meat near the outside of the can is overcooked before the center is heated to sterilizing temperature. In the dielectric process, the temperature is increased rapidly and uniformly throughout the product.

MUNNECKE: Why can't we, as packers, use this process right now?

DOTY: We still have some technological problems to solve. Because of the very nature of dielectric heating, we can't process in tin cans. Thus, the commercial application of the process would involve processing in a container with metal ends and a non-conducting (glass or plastic) body, or would require the aseptic transfer of the processed product from the processing cell to a metal container. We are studying this phase of the problem now.

MUNNECKE: How about the cost of the process?

DOTY: The cost of processing should not be excessive. We figure that boned hams or luncheon meat could be processed by this method for 1c to 1.5c a pound, including amortization and maintenance of the high frequency equipment required.

MUNNECKE: Isn't the original cost of the high frequency equipment quite high? I'm not sure that we could justify the original capital investment.

DOTY: How much money would your company be willing to invest to be able to produce hams like the one you just tasted that would not have to be distributed and stored under refrigeration?

MUNNECKE: Of course I can't answer that, but I get your point. These advantages should really justify considerable expenditure if the process can be adapted to commercial production. Are there any other developments that can be applied immediately in the regular operation of the industry?

DOTY: Yes, there are two developments here that should be of great interest to everyone in this room. One is a system of aluminum foil insulation for retorts which cuts down the radiant heat loss from retorts to approximately $\frac{1}{8}$ that found for uninsulated retorts. This results not only in a 50 per cent saving in steam for retort operation but also in a cool retort room, and I know that hot retort rooms are a real headache to many companies. The other development is the application of a thermal tape and recorder for indicating and recording the temperature in a dry rendering tank. The use of this equipment enables an operator to control the rendering process much more closely than is possible



W. D. Berger, vice president, Chicago; Herman Barney, vice president, New York; Edward H. Oppenheimer, president, Chicago; M. S. Holstein, vice president, Chicago, and Cy Fels, vice president, Chicago, all of Oppenheimer Casing Co.

by the methods now in use and provides a permanent record of temperature throughout the process. Naturally, the application of this equipment would result in the production of more high grade fats. In other words, you may reduce your losses due to improper cooking. In addition, the method would lend itself to completely automatic process control with consequent savings in labor. The general application of these two developments by the industry would result in savings amounting to thousands of dollars a year. These are just examples of how dollars spent for research can save hundreds of dollars in operating costs and enable you to produce better products at the same time.

MUNNECKE: That brings us directly to this question of by-products. Dr. Schweigert, tell us about this.

SCHWEIGERT: These programs include studies on animal by-product feeds, studies on pig de-hairing to improve pigskins for leather and improved processing methods for cattle hides. One of the major by-products for which new uses need to be developed is animal fats, both greases and tallow. During the past several years we have been studying the nutritional value of inedible animal fats in dog food and poultry rations. On the basis of these and other studies the use of animal fats in feeds is increasing at a rapid rate. In fact, we have been advised that the entire production of inedible fats by some meat packing companies is being sold to feed manufacturers. I thought you would be interested in seeing some of the chicks that have been fed 4 per cent animal



FIRST ROW: Roy Nichols, sausage maker; Ray D. Nelson, assistant sales, and Fred Ohse, owner. Second Row: Dale Dunn, sausage foreman; Jeff Freidline, plant superintendent, and Elmer Keene, sales manager, all of Ohse Meat Products Co., Topeka, Kans.

fat in the diet for a three week period. What do you think of them?

MUNNECKE: How is the performance of these chicks at broiler age?

SCHWEIGERT: Excellent. Less feed is needed to raise broilers to 2½ lbs. in weight and the carcass is high in quality. With the rations not containing added fat, 6.4 lbs. were needed as compared to 5.8 lbs. for this ration with 8 per cent added animal fat.

MUNNECKE: We have been much interested in these developments and the experimental results obtained at the American Meat Institute Foundation. Feed manufacturers are concerned with dustiness and appearance of their feeds. I note that the rations containing fat are not dusty.

SCHWEIGERT: This advantage has been pointed out to us more than any nutritional or other advantage, such as increased food utilization, vitamin stability, ease of pelleting, etc.

EVERSON: In your experiments did you add an antioxidant to the animal fat?

SCHWEIGERT: Yes. It is good insurance in controlling rancidity and maintaining the vitamin stability.

MUNNECKE: It seems apparent that this new use for animal fats, not only for dogs and chicks but also for beef and dairy cattle and swine rations, will utilize large amounts of our fats in the coming years. Have you any estimates on the potential market for animal fats in feeds?

SCHWEIGERT: Yes. If only 2 per cent of animal fats were added to the total production of commercial feeds in this country 1,400,000,000 lbs. of animal fats would be utilized. This would amount to over half the total annual production of inedible animal fats. To put it another way, if this development resulted in an increase of only 1c per pound for tallow and greases, it would be worth \$25,000,000 a year to the producers of animal fats.

MUNNECKE: That would be equivalent to all the lard produced in the United States. I am sure many of our friends here will want to know more about this. Have you prepared any publications on this work?

"The rule book's working, gentlemen," Dr. Kenneth McFarland tells meat packers in inspiring address at "Look Ahead" luncheon. Recognized as one of the nation's foremost educators and an outstanding speaker, Dr. McFarland is educational consultant for GMC.



THIS APPETIZING buffet spread was prepared for women conventioners at a get-acquainted tea.

SCHWEIGERT: We have. Over 5,000 copies each of *Bulletin No. 15* and *Circular No. 7* already have been distributed.

MUNNECKE: You mentioned the work on hides. I would like to point out that the American Meat Institute Foundation has been carrying on for some time a research project, supported by the beef slaughtering membership of the American Meat Institute. Has any phase of this hide program been completed, Dr. De Beukelaer?

DE BEUKELAER: Yes, a process for cleaning hides during the manure season has been developed which was described in *Foundation Circular No. 6* which was distributed to the industry last February.

MUNNECKE: What are you working on now?

DE BEUKELAER: One of the chief reasons for producing cured hides free of manure deposits was to reduce transportation charges, so naturally we are studying other means of reducing shipping weight. Specifically, we have been drying hide pieces in a current of warm air after soaking in brines, ranging in strength from 50° to 12.5° salometer. This work has shown definitely that "shrink" of the order of 50 per cent may be secured within 20 hours, and of 55 per cent after 40 hours drying. The use of the synthetic detergents was unmistakably effective in promoting shrinkage during the brining operation, which advantage was held throughout the subsequent drying. Our work also indicates that hides which are green fleshed and soaked in dilute brine, then in plain water, readily unhair after a short liming period and can be dried within 20 hours to a shrink value of 70 per cent.

DOTY: How would such dry hides perform at the tannery?

DE BEUKELAER: Our work indicates that hides in the dry hair-on condition rehydrate to satisfactory condition within 24-48 hours, the longer period being associated with the weaker brine treatments, and even faster in the dry, hair-free condition. Of even more significance, however, is the indication that satisfactory loosening of the hair results from only two to three days of liming, instead of the conventional five or more days employed in the heavy leather production for which such hides as these find use. Naturally, the hair-free hides need only be soaked back and tanned directly.

SCHWEIGERT: In view of the additional expense



ABOVE: Standing room only at sausage and merchandising meeting.

RIGHT: Harold Scheid, AMIF, holding white rat symbolic of research studies in biochemistry and nutrition now in progress. Robert McSweeney, partner, Joseph McSweeney & Sons, Richmond, Va., holds white rock chick.

that such practice would involve, what incentives are there in this proposition?

DE BEUKELAER: Obviously such dry hides would command a price commensurate with their increased potential yield of leather plus the additional handling expense as offset by the value of hair, the animal feed value of the fleshings and the reduction of curing salt to 50 per cent or more of the present requirement.

EVANS: How can the tanner afford to pay the expense of this additional handling by the hide producer?

DE BEUKELAER: Cattle production at federally inspected plants averages more than 1,000,000 head a month. The dry, hair-on form represents a reduction of over \$2,500,000 in transportation charges paid annually by the tanners at current rates. The dry, unhaired form raises this amount to over \$4,250,000 besides eliminating most of the tannery beam house expense. In this connection, it is important to point out that shrink values of the order of 50 per cent or more render hides with hair-on too stiff for bundling and their high bulk value would be a disadvantage. This also would be true for dehaired hides having shrink values of 60 per cent or over.

EVERSON: What other advantages would hides in either of these dry forms possess that should appeal to the buyer or the converter?

DE BEUKELAER: Under proper storage conditions they could be held indefinitely at room temperature without danger of spoilage or loss of value due to salt stains or other causes that affect the product in its present form, even when held in refrigerated storage.

MUNNECKE: What are the prospects of overcoming this high bulking factor to which you just referred?

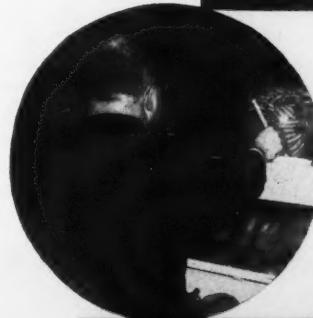
DE BEUKELAER: It is claimed that removal of moisture by extraction with mixed solvents produces hides having very low moisture content and possessing a high degree of flexibility. This process has another important feature in that it may simultaneously remove the fat from the hide and eliminate or reduce the volume of leather

showing the defect known as "kidney stain" which results from excess fat deposits in the original hides in the region of the kidney area of the animal. We plan to investigate this method from both angles.

MUNNECKE: I believe these examples illustrate very well the scope of the research studies it is conducting and the value of the work supported by our meat industry contributions to the Foundation. We will be looking forward to hearing about the studies on curing and smoking sausage, studies on rearranged lard and antioxidants, the nutritive value of meat, bacteriology of ham curing, etc., in the future.



Murray Sherman, below, vice president, Columbia Packing Co., Boston, Mass., pauses to check program at registration desk.



Conventioneer, left, tries some spherical geometry in cocktail wiener guessing contest.



BETWEEN: Panel of experts listens to speaker at sausage and merchandising section meeting.

LIVESTOCK



Promote Beef and

Reduce Taxes



O. W. LYNAM

IT IS WELL FOR US occasionally to review some of the past and compare it with the present. We often readjust some of our past prejudices and mislead ourselves into the belief that we have been thinking. In this age of dangerous propaganda it is necessary for us to be able to separate the true facts from the false ones. The question of "what is truth" is as old as man. The Greek Diogenes sought it with his lighted lantern. Today it should be one of the major projects of all connected with the livestock and meat industry to keep the public correctly informed of these facts.

Our industry, a short time ago, was the target of some of this slanted propaganda and will be again at times in the future. There are people in this great nation of ours who have never had the ability to build a business or an industry so their means of gaining attention and a position in society is by attacks on the successful business segments of society. These, along with those who are "players with words," and those who are gullible enough to be "sold a bill of goods" by some of our foreign statesmen, are constantly spreading some form of propaganda. So the public relations section of our industry has a large field of operation in the years ahead.

Let us take a look at the past and analyze some of the causes of the present cattle situation. Years of bountiful rainfall and high prices have always resulted in high cattle numbers. Lush profits encourage the "in-and-outer" to enter the cattle business. These cause cattle to be held back, herds to grow, and therefore slow up orderly marketing.

The O.P.S. (probably more correctly called the "Old Politicians' Sanctuary") and Mr. DiSalle, with their unworkable rules and regulations, interfered with orderly marketing, and caused reduced consumption of meats by their continuous mouthings of propaganda. Then came the drouth and forced marketing of cattle.

It is now time to look at some of the proposed reme-

"A Rancher Views the Cattle Situation" by O. W. Lynam, Kansas Livestock Association — "A Legislator Views the Farm Problem" by U. S. Senator Milton R. Young of North Dakota — "A Marketman's Viewpoint" by P. O. Wilson, National Livestock Producers Association — "Livestock Research — Blueprint for Tomorrow" by Dr. Albert J. Dyer, University of Missouri.

dies. There are some who believe that price supports are the answer. The cattle associations of this nation do not believe this is the solution, but that supports lead to more future problems than they will relieve at the present. We have opposed price ceilings, slaughter quotas and other regulations of the cattle industry in the past. Livestock people will not look well in the eyes of the public if they start asking for price supports at the first sign of trouble.

However, we have a large section of the country which has been hit by a disastrous drouth. This drouth, and falling cattle prices, have brought a lot of cattlemen near the brink of ruin. The stamina and courage of these stockmen should be rewarded, and they should not be allowed to fall by the wayside. However, I can foresee no great harm to the industry when the "Main-Street Cowman" fades from the picture.

The government's drouth assistance and meat purchasing programs, with which we are all familiar, are proving of great benefit. They will not retrieve all the losses but should steady a declining market. Only nature can entirely alleviate the drouth effects. There has been money made in the cattle business, and there has been money lost, and so it will continue until the end of time.

A policy of self help has been advocated, and extreme effort has been put forth by all of us to increase meat consumption. To me, herein lies our salvation. The American National Cattlemen's Association, the state associations, the Cow-Belles, and all segments of industry connected with the processing and merchandising of meats have cooperated in this program, and it is bearing fruit. At this time I would like to quote a statement from the last issue of *Cow Business*, a biweekly sheet published by our American National Cattlemen's Association.

"The beef promotion program is now in full swing with

Carl Neuman, assistant manager, and R. C. Pollock, general manager, National Live Stock and Meat Board, Chicago.



retailers, both chain and independent, packers, livestock associations and other groups pushing the sale of beef. Indications of the results of this campaign are seen in the reports of those merchandising beef; beef sales since the first of January have increased more than one-third compared with a year ago. There have been large increases also in the sale of veal.

"Samples of promotional material are coming to the office from all sides—pamphlets, releases, newspaper clippings of advertisements, beef stickers, posters, circulars of various kinds from all segments of the industry, including the U.S. Department of Agriculture, Western States Meat Packers Association, American Meat Institute, National Live Stock and Meat Board, National Association of Food Chains, National Association of Retail Grocers, Cow Belle organizations, state cattle associations and county and regional groups."

This shows what can be accomplished by all segments of a great industry working together.

Meat promotion must be a continuous program. Meat is America's great energy food, produced in such abundance that everyone can share in its values. Beef of all kinds is going to be in heavy supply for some time to come, and people will need to be told over and over again how nutritious, how delicious and how inexpensive it really is. They must be reminded that beef is really a "bargain buy" now.

Our job is to continue to get enough beef into the hands of the consumer *at a price he thinks he is able to pay*. This is a selling job. A great many people seem to think that beef and T-bone steaks are synonymous. Normally the front quarter of beef sells at 75 to 80 per cent of the hind quarter. Today, because we are eating farther back on the beef, the front quarter price has shrunk to only 55 per cent of the value of the hindquarter. That puts a premium on the hindquarter that is unjustified and the housewife feels she is being "taken," and in a measure she is. She must be told again and again how economical and appetizing the forequarter cuts can be when properly cooked.

This problem of getting beef to the public at a price

it feels it can afford to pay should be of first priority to the industry. Economy must be practised in production, in processing, and also in merchandising. The cattleman should be interested in the consumer's welfare because his income is a share of the consumer's earnings. The public relations section of the industry must keep the public informed of the facts and that beef is not an expensive food. We must win the buying public over to our side and show it that today when consumers go out and purchase beef they are actually obtaining the greatest food bargain in history.

TAXES: The high take of income taxes has caused withholding of cattle to the following year and also the next. Taxation has reached the point in this country where it results in diminishing returns for industry. We have always known we could not take our earthly wealth with us when we depart this world, but some of us can remember when a tolerant government allowed us to retain part of it while we were here. The upholders of society are quick to tell us we should be proud and happy to pay taxes in this great country of ours and we are. . . . Yet, we would be just as proud and much, much happier on half the taxes we now must pay to support a government that has grown too big.

How long are we going to continue taxing people in this country to furnish unneeded services and services that are beyond the reach of our economy? There are foreign countries and some people in this country who prefer to live on their backs with their hands in Uncle Sam's pockets rather than get up and walk on the underpinnings God gave them.

At this time I would like briefly to bring to you some thoughts from a great American of the past, Abraham Lincoln:

"You cannot bring about prosperity by discouraging thrift. You cannot strengthen the weak by weakening the strong. You cannot help the wage earner by pulling down the wage payer. You cannot further the brotherhood of man by encouraging class hatred. You cannot keep out of trouble by spending more than you earn. You cannot build character and courage by taking away man's initiative and independence. You cannot help men permanently by doing for them what they could and should do for themselves."

In closing, I might leave this thought with you, and what might be a motto for a cattleman for the next year! Quoting a western cattleman, and paraphrasing an old rhyme:

*"Early to bed and early to rise,
Work like hell, and advertise!"*

LEFT: Dave Horwitz, president; Donald Horwitz, Gene Nauth, Robert Horwitz and Frank Horwitz, secretary, all of General Machinery Corp., Sheboygan, Wis.

RIGHT: Robert Erickson, J. M. Riley, assistant manager sales division "A"; E. H. Helfrich, Frank Markle, assistant manager sales folding carton division, and Rex Paxton, in charge of public relations, all of Sutherland Paper Co., Kalamazoo, Mich.



Need High Supports for Stability



M. R. YOUNG

IN DISCUSSING WITH YOU some of the problems of the producers of farm commodities I would like to tell you that I spent 47 years of my life on a farm and the remaining eight years as a member of the U. S. Senate.

While I have given considerable attention during my service in the Senate to the problems of the grain farmer, I am not unmindful of the problems of other farm producer groups. It may be of interest to you to know that the cash sales of fed cattle and hogs on the two farms operated by my three sons and myself far exceed the cash sales of wheat and other grains. We are in the cattle producing and feeding business and have no intention of abandoning this important part of our farming operation.

For the past 30 years or more, the prices farmers received for their commodities have been good in times of war or war emergency and, for the most part, low during long periods of peace. The reason for more favorable prices during periods of war or war emergency is due entirely to the fact that during these periods we have never been able to produce enough to meet the demands for food and fibre. Short supplies usually bring good prices—that is, if we do not have a flood of imports from foreign countries.

Only a slight surplus of farm commodities, particularly perishables, invariably brings about depressed prices. For example, when there is a national production of apples of 120,000,000 bu., prices are depressed and the producers lose heavily. When the apple production is 100,000,000 bu. or less, prices are good and apple producers make money. What is true of apples is true of almost all other farm commodities and particularly perishables.

Lack of confidence on the part of producers, processors, and others also has a great bearing on commodity prices. I think we have good evidence of this in present cattle prices. Fed cattle have been selling for around \$30 in the Chicago market and feeder cattle have been selling from \$16 to \$20. With the present corn prices, and assurance of ample supplies, the present spread between finished cattle and feeder cattle represents an excellent feeding ratio. Yet, bankers, through lack of confidence in the near future, have been reluctant to loan to feeders the money necessary to purchase feeder cattle.

There are some who believe the answer to the livestock price problem lies in cheaper grain prices. In substance, these people are asking the grain farmers to subsidize the livestock industry. This is not the answer to the meat industry's problems.

Now, parity is nothing more than a government standard of what is supposed to be a fair price. According to the latest figures I have from the Bureau of Agriculture Economics as of August 15, cash wheat was selling for 76 per cent of parity, corn 83 per cent, oats 81 per cent, rye 68 per cent, barley 81 per cent, beef 78 per cent, hogs 117 per cent, and butter fat at 92 per cent of parity.

According to this computation, and I think it is reasonably correct, grain prices are already at a level far below parity or a fair price.

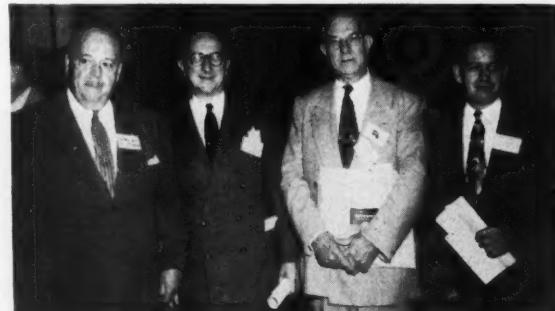
When hog prices were low—and that was only about a year ago—I received many letters from hog producers demanding that corn and other feed prices be reduced. If corn prices had been reduced at that time by some scheme or other, hog producers would have kept producing in large numbers and cattle feeding would have been accelerated even over its then high rate of a year ago. I do not think I need tell you what the result would have been. We would have had a great surplus of hogs on our hands now with depressed prices—and even greater supplies of beef.

I have spent all of my time since the adjournment of Congress early in August out among the farmers and stockmen in my own state of North Dakota and in many midwestern and mountain states. I find farmers and ranchers, as well as many businessmen, bankers, and others, greatly worried. They are worried because they fear the federal government may withdraw from the field of protecting farm prices and that they again will lose their farms and homes as they did on a large scale during the late 1920's and all during the 1930's. This fear and lack of confidence has had much to do with the recent drastic drop in farm commodity prices.

This "fear psychology" has been generated by some spokesmen for agriculture and unprecedented attacks by magazines and newspaper editorials on a nationwide basis. These attacks have seemed most unreasonable to farmers. It is difficult for them to understand why farm prices should be dropping so drastically at a time when the cost of almost everything that they have to purchase is steadily increasing.

In 1945 farmers received 54c out of each consumer dollar whereas at present the producer only receives 44c out of each consumer dollar. Cash wheat prices recently dropped drastically to a level of \$1.60 a bushel just before the wheat quota vote. At almost exactly this same time bread prices, nationwide, rose approximately 2c a loaf. This is difficult for producers to understand. They fail to understand, too, why most restaurants in the United States still charge the same price for a good steak as they did when beef prices ranged approximately 40 per cent higher than they are now.

There are still other things which are causing great



Col. E. N. Wentworth, director of livestock bureau, Armour and Company, Chicago; George W. Kern, George Kern, Inc., New York; H. L. Sparks, president, H. L. Sparks & Co., National Stock Yards, Ill., and Charles Hughes, assistant director, livestock bureau, Armour and Company.

concern to farm producers. They fail to understand (and I do too) why the tariff protection on imports of industrial goods is approximately double that of farm commodities. They have witnessed 11 freight rate increases since the war along with approximately 12 wage increases—and this during a period when farm commodity prices have seen a steady decline starting with 1947.

The freight rate on oats from Crosby, N. Dak., to the head of the Great Lakes is 15.87c per bushel. Directly across the line in Canada, due largely to the subsidization of Canadian railroads, the freight rate on a bushel of oats from Regina to the head of the Great Lakes is 6.4c a bushel, or about one-third the cost of transporting oats in the United States. This is tough competition.

Let me give you some figures while we are discussing this subject of subsidies. According to testimony early this year before the Senate committee on agricultural appropriations of which I am chairman, there was a net profit of \$4,872,708 in the operation of the price support program for basic farm commodities. This was from October 17, 1933, through February 28, 1953. During this same 20-year period there was a loss of \$1,073,115,955 on the operation of the price support program for perishable farm commodities.

While \$1,000,000,000 may seem to be a lot of money, it is small compared to the good this program has done during the 20 years of its operation. It is small when you think that we gave the little country of Holland more than \$1,000,000,000 to stabilize its economy since World War II. It is indeed small in comparison with the postal subsidy we have granted to the great magazines and newspapers of this nation, to the merchant marine and the air lines, and other subsidies or tax benefits to almost every conceivable type of industry.

Of course, there are some evils attached to any kind of a government program, but if the alternative were one of no price protection and a return to the conditions which we had in the late '20's and '30's, then let us continue this program and improve it.

Most farmers, including myself, would be willing to return to a system of free competitive markets if every other segment of our economy were placed in the same status. This is not the case today. Producers, particularly grain producers, have little control over their production once their crops are seeded. Without government price support programs, the producer would be competing against millions of other farmers in the free and open market and would have to take whatever the supply and demand market would provide. This is not true of most of the things he has to buy. For example, all types of trucks farmers purchase are manufactured under a labor contract where labor is guaranteed a certain wage, a 40-hour week with time and a half for overtime, pensions, and health programs. And I am not blaming labor organizations for securing more benefits for their employees.

The manufacturer, however, can and does add these costs as well as increased taxes, etc., to the products he has to sell. If he has a surplus he can easily control his production. Manufacturers can maintain a pretty stable price for their products. The transportation company which hauls these trucks to the farmer can and does secure increased rates to compensate for increased costs of operation. The farmer who buys the truck has no way of adding the increased cost of the truck or other industrial



H. L. Taylor, retired, Swift & Company; A. C. Bruner, assistant secretary-treasurer, East Tennessee Packing Co., Knoxville; Porter M. Jarvis, executive vice president, and John Holmes, president, Swift & Company.

goods to the price of the things he has to sell. So long as that situation exists, there will be a need and demand for federally supported prices.

Farm prosperity is the most accurate measure we have of national prosperity. We have never had a serious depression when farm prices were at parity with city prices, but invariably in the past hard times have followed low farm prices. That is why the recent slippage of farm income is already having its effect on many industries and is to me the most frightening barometer of another financial storm. It can be avoided and without excessive cost but unless taxpayers, housewives, farmers, and Congress arrive soon at a mutual understanding of the problem we shall get nowhere except into far deeper trouble.

For many reasons the so-called farm problem plagues everybody and is correctly understood by almost nobody. Housewives fret over the high cost of bread, meat, and milk not realizing perhaps that the percentage of the family budget that goes for food is almost identical with that of 25 years ago. Farmers fume as their products hit declining markets although their prosperity in recent years has been quite good and they can look confidently forward to price protection one way or another in the future.

The business of farming is no longer a poor man's job. A survey by the University of Illinois in one single county showed investments of \$45,000 in land, building, and machinery for each man employed full time on the farm. The comparable average of industry is \$12,500. Farm production expenses have increased from an annual \$5,800,000,000 in 1938, to \$18,900,000,000 in 1948—a three-fold rise in ten years. In 1850 men did 15 per cent of farm work, animals 80 per cent, and machines 5 per cent. In 1940 men did 2 per cent, animals 2 per cent and machines 96 per cent—and the machines are even more efficient today. Net gain of population is one person every 12 seconds, so that our farmers will have to feed 190,000,000 or more at home by 1975, to say nothing of hungrier world-wide millions.

We are going to have surplus problems for a few years to come but not for long. We have almost exactly the same number of cultivated acres in the United States today as we had 20 years ago. It is quite important in our economic picture to recognize also the fact that in the past 20 years we have reduced our horse and mule numbers from 19,000,000 to a present low of 5,000,000.

head. This reduction of 14,000,000 made available for production of food for human consumption more than 60,000,000 acres of land formerly used to produce feed for horses and mules. This 60,000,000 acres formerly used to feed horses and mules is equivalent to the 62,000,000 acres of land which can be seeded to wheat next year. While it is true we can continue to increase our production per acre, we will not be able to increase in sufficient volume in future years to meet our food and fibre requirements.

Until consumer needs for food exceed ability of farmers to produce, we are going to have a farm price problem. We have had ruinous prices in the past and we can expect them in the future. It was this problem that led Congress, beginning thirty-odd years ago to search for some method or device that would give our farmers reasonable assurance of stable markets and prices in relation to the price of what they have to buy.

The first major legislative suggestion was the McNary-Haugen Bill, an idea so radical for that day and age that it turned Congress practically inside out during the 1920's. It proposed a two-price system for major farm crops, a domestic price that would find its own supply and demand level on the open markets, and an export price amounting to whatever the product would bring abroad, plus a subsidy which the government proposed to collect from the farmers themselves to equal the domestic price.

Congress passed the McNary-Haugen Bill twice and President Coolidge vetoed it twice. Yet, in the light of our struggles in the intervening years, many farm economists now believe that it would have been a far better system than some we have tried in the meantime—better for the farmer and less costly to the government. It is essentially the method of operation and payment that is now in effect in the International Wheat Agreement and in the Canadian Wheat Pool. Had the McNary-Haugen bill become law, the depression of the '30's would have been far less severe and it wouldn't have taken the Republican Party 20 years to gain a sufficient farm vote to elect another President of the United States.

In the Hoover administration, the Congress passed a Farm Board law that set up a fund of half a billion dollars to be used in stabilizing the prices of agricultural commodities. It seemed then like a lot of money but it wasn't enough. In the depression of the early 1930's, the Government Stabilization Corporation went bankrupt, and liquidation of the stocks it had on hand helped push barley down to 1c a bushel, oats to 6c, and wheat to 28c on the farm, while cattle sold for less than \$2 a hundred.

Next in its efforts to solve the farm price puzzle, Congress tinkered with a system under which processors were to pay a tax on all agricultural products that went through their hands. This processing tax was to be the difference between market price and so-called parity, and the funds collected by government were to be prorated back to the growers. Presumably, the farmer was to receive full parity price for that part of his production that was consumed in the domestic market. The Supreme Court threw it out.

From 1933 to 1938, government floundered, trying to find a money-making formula for the farmer. That was when the little pigs were killed, when crops were plowed under, when direct subsidies were paid in the effort to curtail production.

None of it worked too well, and in 1938 we came finally



FRONT ROW: S. A. Mayer, secretary; F. A. Mayer, vice president, and H. J. Addison. Back Row: Charles F. Mayer, president; M. C. Dakin, and C. O. Hurry, all of H. J. Mayer & Sons Co., Chicago.

to the Agricultural Adjustment Act, providing government loans on certain basic farm crops at a small parity percentage.

Thus "parity" came at last into a legislative formula attempting to give to the farmer prices for what he sells that are reasonably equal to the prices of the things he has to buy. In the simplest terms, if a suit of clothes cost him 25 bu. of wheat in 1910-14, he should be able to buy a comparable suit for 25 bu. of wheat in 1953.

The 1938 law set the level of farm prices support at 52 to 75 per cent of parity. In 1941, the percentage was raised to 85, and the wartime Steagall Amendment of 1942 gave still another boost to 90 per cent, and covered perishables as well as basic commodities. The Agricultural Act of 1948 set up a sliding scale of 60 to 90 per cent of parity. The Act of 1949 raised this to 75 to 90 per cent of parity, but a later amendment restored the 90 per cent provision which further legislation has frozen in the law through 1954.

This price support legislation, unchanged in principle, has now been with us for almost 15 years. It provides for production and marketing control in case of oversupply—and the nation's wheat farmers voluntarily voted, not long ago, to reduce acreage to 62,000,000 acres in 1954, with the continuance of their 90 per cent parity support.

Personally, I believe in a price support at a fixed and rigid percentage of parity for those farmers who choose to comply with the program. Further, I believe it must be at a high figure—at least 90 per cent—if the formula is to fulfill the purpose that Congress has had in mind. Let farm prices continue to drop, with no more than 60 per cent of parity protection, and the national income will be shattered to depression depths. Farm prices, it must be remembered, stood at 61 per cent of the 1910-14 parity figure when the bottom fell out of our financial world in 1932-33.

Statistically, the case for high parity prices is proved in many ways:

For at least 25 years, annual national income has averaged seven times gross farm income. Thus in 1932, when gross farm income fell to \$6,400,000,000, national income dropped at the same time to \$41,700,000,000, and in 1952, when farm income hit \$36,900,000,000, the national income rose with it to \$292,200,000,000. The reason for this

constant relationship is not hard to find: Modern methods of farming have made it possible for each American farmer to support himself and to carry on his back six urban income-producing food consumers. But if farm income declines, through government's failure to support it at high parity, then national income will also decline in the ratio of seven to one, with depression as the almost inevitable result. Farm income insures national income.

Food, clothing, shoes, beverages, and tobacco—all of which originate as products of the farm—constitute year after year 70 per cent of all goods sold at retail in the United States. That was true in 1933 when retail sales dropped to \$18,142,000,000; it was equally true in 1951 when retail sales had risen to \$98,491,000,000. The constant demand for these products generates the dollar turnover which operates our economic machine, but, as must be quite evident, when the raw materials start into process at less than parity, the amount of money in the cycle is reduced, national income is cut and disaster impends. Here again we can see the necessity of keeping the prices of farm products high in order to maintain the soundness of our national affairs. And the cost of farm price supports to bring this about is a minor matter beside the loss that would result from failure to reach for parity between farm and city prices.

Approximately 22 per cent of the national income is always spent for food. In 1929, when national income was \$37,400,000,000, expenditures for food amounted to \$19,600,000,000, or 22.5 per cent. In 1939, when national income was \$72,500,000,000, food expenditures amounted to \$15,800,000,000, or 21.8 per cent. In 1952, with a national income of \$201,100,000,000, food expenditures totaled \$63,400,000,000, or the same 21.8 per cent. Bread and beefsteak and potatoes may be priced higher in the grocery stores, but statistically the cost of living remains a constant percentage of income.

More than one-third of our population should properly be classified as rural. This includes not only those people who live on farms and in towns of 2500 and under, but also those who live in larger cities that are, in effect, the trading centers of widespread agricultural areas. Obviously, if these people are to hold up their end of the overall national economy, the prices of the farm commodities that constitute their income must be supported at parity with the goods, the machinery and appliances they buy.

Present surpluses of wheat and corn are a guarantee of ample supplies at fair prices to consumers and livestock feeders in the United States and all friendly nations.

An integral part of the war security program is the stockpiling of important foods and fibres. These planned carryovers of farm commodities are a highly distressing factor on cash market prices and it must be recognized that in performing the patriotic service of building these stockpiles farmers are ruining whatever possibilities they might have of securing favorable open market prices.

To my way of thinking, the evidence is altogether in favor of high farm price supports. If we are to maintain a stable economy in our nation we shall have to give greater protection to the prices of farm commodities—not less. Those who advocate lower price supports are blindly following in the footsteps of those who let us drift into the depression of a quarter century ago.

Since everyone will prosper as the farmer prospers, it should not be too much to ask that everyone try to under-



FIRST ROW: Don Flynn, Ernie Webster, Toronto manager, and Larry Tauber, vice president, Chicago. SECOND ROW: Gordon Cummins, sales manager, Chicago; Bill Coller, Columbia, S. C.; Bob Hammer, Chicago, and Dave Taughon, Chicago, all of Transparent Package Co.

stand the situation and work for the common cause.

As members of the American Meat Institute, you are dealing with the livestock industry. The livestock industry, in my opinion, is the most important segment of our American economy. The cash value of livestock, dairy and poultry products in total represents approximately 55 per cent of the cash value of all farm products.

The importance of the livestock industry can be set forth quite clearly in its relationship to our economy as a whole. The millions of head of cattle, hogs, sheep, etc., represent a labor force and millions of factories to process nature's raw materials for society. The producers you represent never strike and do their job urged on by the natural force of survival. As an industry, the livestock industry processes more tonnage of raw materials than all other processing plants and usually at a narrow profit.

The producers of cattle have been subjected to a sharp drop in prices the past eight months or more, with high operating costs which have imposed extreme hardship on most producers.

Cattlemen, through their associations, in recent weeks have asked for government assistance. The present government program to purchase sizable stocks of beef on the open market for domestic and foreign needs has helped materially. The gifts of food to East German people recently, representing only a few million dollars in cost, created more concern and worry in the Communist-dominated countries of Soviet Russia than did the \$7,000,000,000 or \$8,000,000,000 that we gave for military and economic assistance in France. These food packages, given directly to the people, are something they understand and appreciate.

I support the views of several cattle associations that the government should purchase several million additional head of cows and heifers to stabilize the great cattle industry. The cost would be small compared with the stability it would lend not only to cattle but our entire economy.

With our total public debt of more than \$540,000,000,000, and with our overall top-heavy economy, we cannot afford another depression. We can and must find a way to provide economic security in times of peace as well as war. No administration has yet solved the farm price problem in prolonged periods of peace. This represents a great challenge to the present Republican administration.

Public Needs to Know

Meat's a Bargain



P. O. WILSON

FOR THE PAST 28 YEARS I have, to the best of my ability, represented the interests of a large number of livestock farmers and ranchers in their problems of livestock marketing. The American Meat Institute, representing the slaughterers and packers, has served as the trade organization or representative of the meat packers, many of whom are our customers. In other words, our members produce and feed millions of animals which become the raw material for the packinghouses owned and operated by the members of the American Meat Institute. We have a lot in common, and many projects have found representatives of National Livestock Producers Association and the American Meat Institute on the same side of the fence, fighting in the common interest of all segments of this great industry.

But just to keep the record straight, let me frankly state, we do have our differences. This is only natural since we represent two very different segments of the industry. For instance, we are seldom satisfied with the price your members are willing to pay for the products we have to offer from our members. The interests of buyer and seller should be different, and through the normal procedure of bargaining agreement in price is determined. It is only natural that buyer and seller should conscientiously represent the interest of their respective client. It is also important from the standpoint of the best interests of the industry that minor differences be placed on the sidelines when problems pertaining to the industry as a whole and the welfare of the country are involved.

At this point I want to compliment the livestock and meat industry for the teamwork which has been displayed by all segments in their efforts to produce, process and merchandise the tremendous tonnage of meat required by the people of this nation. While we expect the industry to continue its efforts to improve service and reduce costs, the consuming public should know that their meat dollar today is bringing real bargains.

The losses suffered by our livestock producers and feeders during the past two years have been real and, in many cases, disastrous. The producers' and feeders' losses have come partially from lower prices paid for livestock and meats as well as from higher operating costs, including both feed and labor. These losses suffered by the production side of the industry have resulted in bargains to meat consumers, due in part to the fact that meat has been permitted to move in normal channels and the government has not been using taxpayers' money to buy and store this product in order to support the market. True to tradition, the great majority of our livestock men and their organizations have refused to appeal to the government for guaranteed floor prices or subsidies. These livestock producers and their organizations have felt, and we believe rightly so, that their problems or adjustment could best be solved in a free

market and for this reason they have opposed subsidies and government regulations which accompany such subsidies.

Meat has not been purchased by the government and placed in surplus storage. It is true that since the middle of this year, substantial purchases of canned beef and hamburger have been made by the federal government with Section 32 funds for the school lunch program and other government uses. We would like to point out, however, that substantial amounts of Section 32 funds have been used for several years to buy other agricultural products such as poultry, dairy products and others, but this is the first time that beef has been purchased with Section 32 funds for use in these programs.

We commend the secretary of agriculture for including beef in the school lunch program and for the purchases which he has made with Section 32 funds. This has been a big help to the market during the past few months and this nourishing food will be available throughout the winter months for use in the school lunch program. We consider this a wise move on the part of government officials since they are buying when meat is available in great supply and consequently, obtaining

Vernon Prescott, managing editor, THE NATIONAL PROVISIONER, and Urlando Garapolo, development engineer, Wilson & Co., Inc., Chicago.



Col. Rohland A. Isker (retired) secretary, Associates, Food and Container Institute, Inc., and Col. John D. Peterman, commander of QM Food and Container Institute, Chicago Depot.



J. F. Fraunfelter, beef manager, and R. F. Bartta, industrial engineer, both of Canton Provision Co., Canton, Ohio.



C. H. Dickson, manager livestock service dept., Krey Packing Co., St. Louis, and Robert Harschuk, safety director, Swift & Company, Chicago.



a better buy than if purchases were scattered throughout the entire year.

In periods of adjustment such as we face at this time, it is important that we follow sound economic principles in our planning. We must also realize that in such periods our people, both producers and consumers, are under stress and susceptible to suggestions that may offer temporary relief for a small segment of our people at the expense of other segments or of the entire population. It is easy to talk of sound economic principles. Nearly everyone favors economy in government—taxes at the lowest possible level to meet necessary government expense and protect our national security, freedom of our American institutions including markets and the right of our individual citizen to be free to act, speak and to follow a peaceful course of his own choosing. Most citizens are highly in favor of peace and against war. They favor a sound monetary system but to some extent vary in this attitude on inflation or deflation, depending on its effect on them personally.

Since World War I this country has been confronted with many new and unusual problems. We have experienced periods of deflation as well as periods of inflation. Our population has increased by leaps and bounds. Our cost of government has been multiplied many times. Our taxes have reached the highest level ever recorded in this country and have become a serious burden to all our people. Our entire population, including those in industry, labor and agriculture, have year by year lost part of their freedom, with more and more controls and regulations governing our economy and our individual lives being transferred to the federal government.

We have, during this period, fought with tremendous expense in both money and lives, World War II and the undeclared Korean War. Now that we have a truce in Korea, which we hope is a big step toward peace in the world, we face the transition which follows any war.

We, as individuals as well as organizations representing the livestock and meat industry, must proceed on sound economic principles and review each program or proposal in the light of its ultimate effect on the total economy if we are to make our greatest contribution. The government cannot solve all our many problems. The government can only underwrite, subsidize and guarantee industry, labor and agriculture with the funds it takes from its citizens in the form of taxes. We firmly believe that the shift away from big government to more responsibility and self-reliance on the part of the individual citizen is in the right direction.

The livestock and meat industry has very largely supported such a program. We recommend that it not change its course even in these difficult times. Government subsidies and controls have not worked during the past; they will not work now—nor will they serve to solve our problems of the future. We do not condemn the efforts of the government to encourage production for the war effort nor to assist during periods of disaster, but there should always be provision for taking government out when the emergency has ended. We do not oppose a reasonable floor under basic farm commodities, such as is now provided through the Commodity Credit Corp.'s loan programs. Such a program prevents flooding of markets at harvest time and helps producers supply their markets as the product is needed. We must bear in mind, however, that we produce for use and not for the building

Hugo Slotkin, president, Hygrade Food Products Corp., Detroit, and Roland Sinclair, executive vice president, Kingan, Inc., Indianapolis.



A. W. Brickman, president, Illinois Meat Co., Chicago, and John Morrell Foster, president, John Morrell & Co., Ottumwa.



S. L. Thompson, Griffith Laboratories, Inc., Chicago, and L. B. Harvard, vice president, Sunnyland Packing Co., Thomasville, Ga.



Robert Graf, animal products division, Q.M. Food and Container Institute, Chicago, and David Fogel, Omaha Packing Co., Omaha.



of large surpluses to be held at government expense.

Government floor prices, if continued, should be at a level that will permit use and a normal flow of the product into consumption.

Livestock producers and feeders are finding it difficult to make normal adjustments in their production programs when feed grains and concentrates are being stored by the government at prices above the level at which they can be profitably fed to livestock. Thousands of our livestock producers and feeders also produce grains and other feeds. They recognize the danger of large surplus supplies of any commodity. They know that to compete effectively with substitutes their commodity must be continually moving into consumption and that they cannot afford to build up great surpluses in the government's hands while substitutes take over their consumer's market.

Now I wish to deal more directly with the livestock and meat situation. First, let's look at the swine and pork situation. As early as 1950, the swine producers began to experience difficulty in their cost of production as compared with their market price. The corn-hog ratio was more unfavorable in 1951 and became acute in 1952. With the price of corn supported by the government and



LEFT: Bill McClintock, Dewey & Almy Chemical Co., Chicago; Lawrence Lee Sliigh, chief engineer, and Hugh Bridgford, president, Bridgford Packing Co., Anaheim, Cal., with Robert A. Carbone, Dewey & Almy Chemical Co., Cambridge, Mass.

CENTER: G. van der Linde, and J. H. Boerenbrink, co-owners, Production Import & Export, Rotterdam, Holland.

RIGHT: Henry Kirkpatrick, chief engineer; Robert Rutherford, M. F. Feather, sales manager, and W. H. Fehrs, vice president, all of Dromgold & Glenn Division, Union Asbestos & Rubber Co., Chicago.

consumers unwilling to pay more for his finished product, the swine producer took the only course left open to him—he reduced his breeding program. Today he has fewer hogs to market and the public has less pork. The corn-hog ratio has improved. The producers have reduced overall costs by reducing the number of hogs fed, and the consumer is paying about the same amount of money for a reduced supply of pork. At the present corn-hog ratio there will be a tendency to increase production so producers should watch their numbers as well as their costs.

Much progress has been made in improving the type of pork in line with the demands of consumers. The much talked of "meat type" hog is gradually pushing aside the heavy, over-fat lard type. This should increase the demand for pork and shows possibilities of opening the door for increased swine production. Packers and retailers should find these long-bodied, lean type carcasses in great favor with the trade.

In cattle we have reached a new high in numbers. The government reports a supply of over 93,000,000 head. We have experienced heavy marketing of both cattle and calves for the first nine months of this year. Due to high feed costs and other contributing causes, cattle feeders lost heavily on their 1952-53 operations. They have shown a reluctance to refill feedlots, at least the movement has been slow. This has put the squeeze on the producer of stocker and feeder animals. Added to the price difficulty has been the forced movement due to drought in the Southwest and other sections of the country. Feed and labor costs are high, and both in various ways are supported by the government. Consumers have increased their purchases of beef and there is every indication that they will continue to use large quantities of this product if the price and quality are satisfactory.

I do not believe that we have an oversupply of either cattle or hogs. We do view with alarm the problem of feed costs to take care of these herds and properly finish the animals for slaughter if the government is to continue its practice of stockpiling feeds at present guaranteed levels.

Sheep and lambs are low in numbers as a result of unsatisfactory prices for both lamb and wool. Labor costs are a big factor in lamb production, especially in the range states. We see nothing to encourage increased production at this time or in the near future unless the domestic sheep and wool industry is given more protection than it now has from imports from abroad.

From an overall standpoint, this industry has a very good production record. For the past ten years the per capita consumption of meat has averaged 145.38 lbs., with a low of 135.8 and a high of 153.1 lbs. The interest expressed by the consuming public would indicate that our average consumption is too low; in fact, they have

shown a definite interest for more meat than was available in the peak year of 153.1 lbs. For this same ten-year period, it is interesting to note that total production of meat averaged 22,960,700,000 lbs., with a low of 21,300,000,000 lbs., and a high of 25,178,000,000 lbs.

We have shown a capacity to produce more than 25,000,000,000 lbs. of meat annually and the consumers have indicated a desire for even greater production but the question involved is one of price and this brings up the question of the ability of the American consumer to support the production and distribution machine at a level to supply him with the meat volume desired.

The record shows that the disposable personal income for these same ten years has fluctuated from \$132,400,000,000 to \$234,300,000,000, and with the exception of one small set-back in 1949, the trend has been upward for the entire period. Out of this disposable income the consuming public—exclusive of war years—has spent from 5 to 6.4 per cent for meat at the retail level. During the war years when price controls were in effect and the black market was flourishing, the record shows that a smaller percentage of disposable net income went for meat, but here we believe the figures do not include black market prices and so are no guide.

In peacetime this percentage varies little from year to year. There seems to be a very definite reluctance on the part of consumers to spend more than 6 per cent of their disposable income for meat. If we accept this as an absolute limit we are admitting that increased production of meat without an accompanying increase in expendable income in the hands of our people must be at the expense of livestock producers and feeders.

We do not accept this 6 per cent as an absolute limit. We believe that here is a challenge to the leadership and to the organized groups of all segments of the industry. Meat is a top ranking food product. It is in demand 365 days of the year. It is not in great surplus position and the consuming public has demonstrated its desire for more instead of less meat. This industry has an opportunity to sell its product to the consuming public and prove to them that the price they pay for this product is fair, and beat down the propaganda including such catch phrases as, "Meat is too high." When the facts are

(Continued on page 197)



CONVENTION

Pictures

By
The NP
Cameramen

Wilbur Coulas of the American Meat Institute, Chicago, and Dr. A. R. Miller, chief of the Meat Inspection Division, U. S. Department of Agriculture.





ABOVE: R. A. Rath, chairman of the board, Rath Packing Co., Waterloo; Ben White, vice president, White Packing Co., Salisbury, N. C.; John H. Bryan, president, Bryan Packing Co., West Point, Miss., and John Coverdale of Rath.

BETWEEN: F. Adams, asst. sales manager, and E. Balestier, assistant to president, both of Visking Corp.; Grace Mueller, American Meat Institute; Dave Chesser eastern district manager, Les Houck, assistant general manager, and H. A. Lotka, sales manager, all of Visking Corp., Chicago.



1. Joseph R. Eckrich, and Mrs. Eckrich, Kalamazoo; Mrs. Loretta Eckrich-Fritz, and Richard Eckrich, Ft. Wayne, all of Peter Eckrich & Sons, Inc.

2. Preston Stowell, Food Management, Inc., Cincinnati; L. D. Horodenski, plant superintendent, John Krauss, president, and Thomas Odea, assistant superintendent, all of John Krauss, Inc., Jamaica, N. Y.

3. C. B. Todt, provision manager, and A. B. Maurer, president, both of Maurer-Neuer Corp., Kansas City; Max E. Toby, chief engineer, Package Enterprise, Inc., San Francisco, and W. A. Conroy of Maurer-Neuer Corp.

4. Bertram Tackeff, vice president, and Mrs. Tackeff, and Milton Berger, director of sales, New England Provision Co., Boston, and W. H. Everds, Henschien, Everds & Crombie, Chicago.

5. John Moninger, American Meat Institute; R. W. Unwin, assistant secretary, Reliable Packing Co., Chicago; Douglas G. Peet, vice president and treasurer, and Harley D. Peet, chairman of the board, Peet Packing Co., Chesaning, Mich.

6. Donald E. Swanson, Paul Elliott, O. C. Peterson and C. C. L'Hommedieu, all of International Minerals & Chemical Corp., Chicago.

The Roll is Called

1. H. H. Corey, president, Geo. A. Hormel & Co., Austin, and Cyril Sheehy, vice president, Armour and Company.
2. Dale A. Kilpatrick, vice president, Rath Packing Co., Waterloo; Milton Borchering, price research, Longstreet-Abbott & Co., St. Louis, and Frank Wylie, assistant manager provisions, Rath.
3. Albert J. Koegel, secretary, A. Koegel & Co., Flint, Mich., and Mrs. Koegel.
4. Edward Humphrey, sausage foreman, Weimer Packing Co., Wheeling, with Mrs. Humphrey and Bill Raynor, Independent Casing Corp., Chicago.
5. Barnett Miller, vice president, Boston Sausage & Provision Co., Boston, and Norman Appleyard, jr., P. G. Gray Co.
6. Paul B. Glynn, general manager, Welsh Packing Co., Springfield, Mo., and Mrs. Glynn.
7. W. E. Winans, packaging engineer, and Thomas Bush, development engineer, Armour and Company, Chicago.
8. George J. Schroepfer, University of Minnesota, and W. J. Fullen, chemist, Geo. A. Hormel & Co.
9. Carl Falter, superintendent, Falter Packing Co., Columbus, Ohio, and F. J. Bauer, Wilson & Co., Cedar Rapids.
10. John Blankenship, executive vice president, and Robert Peters, vice president and sales manager, Roberts & Oake, Inc., Chicago.
11. Oscar Johnson, plant superintendent, Tobin Packing Co., Albany, and Mrs. Johnson.
12. W. C. Young, Buffalo, and F. W. Griffith, vice president, Newark, both of Griffith Laboratories, Inc.
13. David Durham, Smith Packing Co., Harrisburg, Ill., and Mrs. Durham.
14. P. G. Phillips, manager southern division, and F. J. Potts, manager eastern division, both of Custom Food Products, Inc., of Chicago.





Edward F. Wilson, chairman of the board, Wilson & Co., Chicago, and Vern Schwaegerle, American Meat Institute.



Matt Koch, sausage foreman, and E. A. Kohl, president, E. A. Kohl Packing Co., Cincinnati.



Harry Tingle, sales manager, and Harold Miller, vice president, Miller Packing Co., Brooklyn.



Tony Belaskas, Cincinnati Butchers' Supply Co., Chicago, and M. J. Hess, assistant chief engineer, Wilson & Co., Chicago.



1. Louis E. Kahn, executive vice president, and Henry Lurie, engineer, both of E. Kahn's Sons Co., Cincinnati; George M. Lewis, American Meat Institute, and John F. Krey, president, Krey Packing Co., St. Louis.

2. E. L. Sweitzer, purchasing agent, and E. F. Penne, manager of sausage department, Rath Packing Co., Waterloo; Howard Firor, vice president, and A. H. Merkel, president, Merkel, Inc., Jamaica, N. Y.

3. Frank Fisher, salesman, Visking Co., Ltd., Toronto; H. K. Leckie, director of research and information, Council of Canadian Meat Packers, Toronto; Dr. G. A. Rose, chief veterinarian of meat inspection, Canadian Department of Agriculture, Ottawa, and J. C. Donaldson, president, Brandon Packers, Ltd., Brandon, Manitoba.

4. M. C. Dakin, H. J. Mayer & Sons Co., Inc.; J. B. Hawkins, manager, Lykes Brothers, Inc., Tampa, Fla.; C. W. Hinson and I. G. Potts, general sales manager, both of H. J. Mayer & Sons Co., Chicago.

5. Ray S. Paul, vice president, Rath Packing Co., Waterloo; Walter E. Fitzgibbon, director of meat merchandising, Kroger Co., Cincinnati; Reese Van Vranken and Richard Van Vranken, both of Van Vranken & Son, Climax, Mich. The Van Vrankens are successful cattle feeders who are great believers in grass and corn silage.

6. O. F. Matthews, manager beef division, John Morrell & Co., Sioux Falls; Harry Batt, Philadelphia Boneless Beef Co., Philadelphia; D. A. McGregor, beef sales, John Morrell & Co., Ottumwa, and Joseph Belack, vice president, Friedman & Belack, Philadelphia.



Nice Day for Photos

1. J. B. Naumer, secretary, and W. W. Naumer, president, Du Quoin Packing Co., Du Quoin, Ill.
2. William Lammers, purchasing agent; G. J. Amshoff, president, and Robert Bryson, chief engineer, all of Louisville Provision Co., Louisville.
3. Thomas L. Johnson, consulting engineer, Geo. Fry & Associates, Chicago, and David Weissman, Drying Systems, Inc., Chicago.
4. George Metzler, accountant, and Louis Lupoff, salesman, both of Hamburg Casting Co., Inc., New York City.
5. Frank Thompson, president, and Harry M. Jones, superintendent, Southern Foods, Inc., Columbus, Ga.; R. H. Marks, vice president, Enterprise Incorporated, Dallas.
6. Warren Tauber, biochemist, Visking Corp., Chicago, and Gregory Pietraszek, technical editor, *The National Provisioner*.
7. A. E. Kern, sales and research, Western Waxed Paper Co., Los Angeles, and C. D. Mullinix, president, Mullinix Packages, Los Angeles.
8. Norman Wright, owner, Wright Packing Co., Boonville, Ind., and W. S. Johnson, president, W. S. Johnson Co., Owensboro, Ky.
9. David L. Swanson, manager, Chicago Producers Commission Ass'n., and W. Lyle Fitzgerald, agricultural economist, Union Stockyards & Transit Co., Chicago.
10. Max Weber, partner, Smith Provision Co., Erie, Pa., and Mrs. Weber.
11. Clifford Case, president, Case's Pork Pack Co., Inc., Trenton, and Mrs. Case.
12. Robert S. Sharpe, supervisor, meat grading service, USDA, Chicago, and R. G. Plager, manager, agricultural service, John Morrell & Co., Ottumwa.
13. Mrs. and Mr. Clark O. Wood, superintendent, J. Fred Schmidt Packing Co., Columbus, Ohio.
14. Robert Coppersmith, extension economist, University of Illinois, Champaign, and Elliott S. Clifton, assistant professor, Iowa State College, Ames.





E. K. Hickman, superintendent, Tobin Packing Co., Rochester, N. Y., and Helen D. Anderson, purchasing agent, East Tennessee Packing Co., Knoxville.



Bob Symonds, general superintendent, Emge Packing Co., Inc., Anderson, Ind., and Mrs. Symonds.



Leonard Luft, Hamburg Casing Co., New York, and Mrs. Ben Lupoff.



1. W. C. Young, Griffith Laboratories, Inc., Chicago; Mrs. William Ulmer with Mrs. and Mr. Alphonse Albert, vice president, Albert Packing Co., Washington, Pa. Back row: George Albert, president, and William Ulmer, superintendent, Albert Packing Co.

2. Harry Pett, Atlanta; Charlie Cox, St. Louis; Dick Jagitsch, West Plains; Jack Kwinter, Toronto; Martin Heiman, supervisor, New York; Bob Jagitsch, Springfield, Ill., and Bill Kaufman, Cincinnati, all of First Spice Mixing Co., New York.

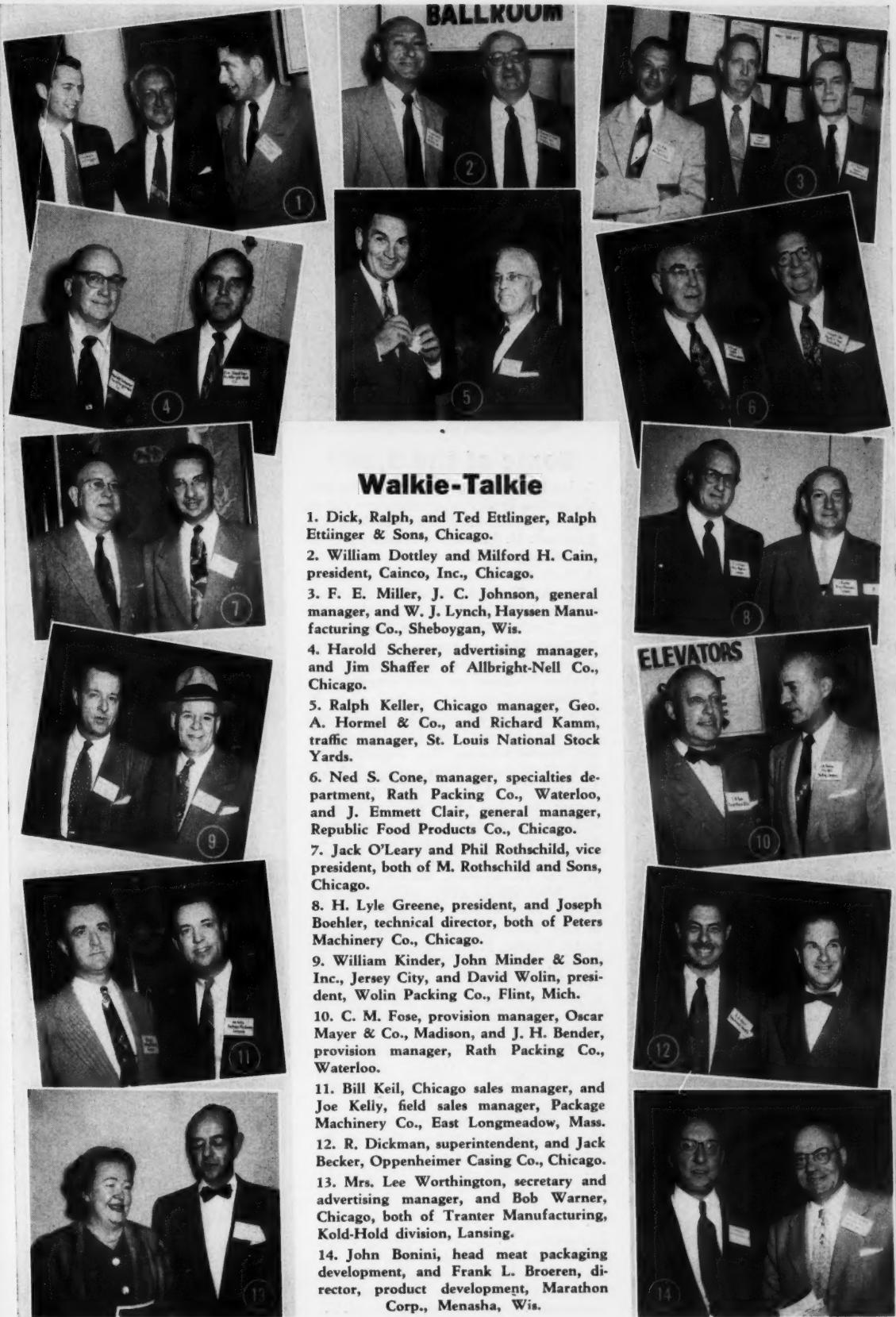
3. Front Row: Robert A. Miller, Chicago, and Dick Gist, Cedar Rapids. Back Row: Ralph J. Garson, Cambridge, Mass.; Daniel J. Forey, St. Louis; Dale O. Lamoreaux, Los Angeles; Robert M. O'Neill, Columbus, Ohio; David T. Denmead and Charles W. Baldwin, Columbus, all of Dewey & Almy Chemical Co.

4. F. F. Bryan, assistant plant manager, and Mrs. Bryan; Lloyd Wright, sausage superintendent, and Mrs. Wright; Hugh Koch, quality control, and Mrs. Koch, all of American Stores, Lincoln, Neb.

5. Front Row: Herman Leff, partner, Fleekops Wholesale Meats, Philadelphia; Erv. Priceman, treasurer, Petersen-Price-man, Inc., Philadelphia; Herman Blum, vice president, Fairview Foods Co., Philadelphia, and Jack Spevak, president, J. Spevak & Co., Inc., Baltimore. Second Row: Joe Shipon, Eastern Boneless Beef Co., Philadelphia; Joe Caper, Herman Bros., Philadelphia; Harry Shipon, Eastern Boneless Beef Co., and Morris Herman, partner, Herman Bros.



BALLROOM



Walkie-Talkie

1. Dick, Ralph, and Ted Ettlinger, Ralph Ettlinger & Sons, Chicago.
2. William Dottley and Milford H. Cain, president, Cainco, Inc., Chicago.
3. F. E. Miller, J. C. Johnson, general manager, and W. J. Lynch, Hayssen Manufacturing Co., Sheboygan, Wis.
4. Harold Scherer, advertising manager, and Jim Shaffer of Allbright-Nell Co., Chicago.
5. Ralph Keller, Chicago manager, Geo. A. Hormel & Co., and Richard Kamm, traffic manager, St. Louis National Stock Yards.
6. Ned S. Cone, manager, specialties department, Rath Packing Co., Waterloo, and J. Emmett Clair, general manager, Republic Food Products Co., Chicago.
7. Jack O'Leary and Phil Rothschild, vice president, both of M. Rothschild and Sons, Chicago.
8. H. Lyle Greene, president, and Joseph Boehler, technical director, both of Peters Machinery Co., Chicago.
9. William Kinder, John Minder & Son, Inc., Jersey City, and David Wolin, president, Wolin Packing Co., Flint, Mich.
10. C. M. Fose, provision manager, Oscar Mayer & Co., Madison, and J. H. Bender, provision manager, Rath Packing Co., Waterloo.
11. Bill Keil, Chicago sales manager, and Joe Kelly, field sales manager, Package Machinery Co., East Longmeadow, Mass.
12. R. Dickman, superintendent, and Jack Becker, Oppenheimer Casing Co., Chicago.
13. Mrs. Lee Worthington, secretary and advertising manager, and Bob Warner, Chicago, both of Tranter Manufacturing, Kold-Hold division, Lansing.
14. John Bonini, head meat packaging development, and Frank L. Broeren, director, product development, Marathon Corp., Menasha, Wis.



Some of the 5,367

1. Ira Pulver, vice president, Kellner Provision Co., Perth Amboy; Seymour Pulver, secretary-treasurer, H & H Provision Co., Elizabeth, N. J., and Joe Fritsche, production manager of Kellner.
2. Karl Ehmer, president, Karl Ehmer, Inc., New York; J. V. Jamison, III, president, and Fred H. Wagner, jr., vice president, Jamison Cold Storage Door Co.
3. Frank Miller, accountant; Richard Nelson, assistant production controller, and Herbert Williams, personnel manager, the P. Brennan Co.
4. Truman Cerney, supervisor; Getz Sher, sales manager, and Larry Rosenberg, manager, Peschke's Sausage Co., Ionia, Mich.
5. P. E. Raymond, sales manager, Sellers Injector Corp., Chicago, and Gregory Pietraszek, technical editor of *Provisioner*
6. Daryl F. Houdehell, sales co-ordinator, and Harry C. Homer, supervisor of manufacturing production, Stark, Wetzel & Co.
7. John W. Brierley, Buckeye Molding Co., Miamisburg, Ohio, and Robert E. Davies, *The National Provisioner*.
8. Earl Plunkett, superintendent, H. A. Smith Packing Plant, and Joseph Martin, partner, Werkmeister Packing Co., both Port Huron, Mich.
9. Marvin Mullins, John Harvey & Co., Omaha, and Frank Lingo, John Morrell & Co., Sioux Falls.
10. H. E. (Gene) Wood, Livestock Freight Traffic Service, Los Angeles, and Harvey W. Wernecke, vice president and sales manager, *The National Provisioner*.
11. G. W. Gibble, secretary-treasurer, and H. Jack Seltzer, president, Palmyra Bologna Co., Palmyra, Pa.
12. T. J. Enright, secretary-treasurer, Chicago, and D. Gedhill, trading manager, Danville, Ill., Wm. Davies Co.
13. Ted Brown, Preservaline Mfg. Co., Flemington, N. J., and Don M. Black, purchasing agent, Kingan, Inc.
14. J. W. Coffman, vice president, Kingan, Inc., and L. Slobodien, divisional sales manager, Nocon Products Corp., N. Y.



AMI Happy? Yes!

1. Karl Weber, Smiths Provision Co., Erie, Pa.; L. M. Batkiewicz, casing department, Wilson & Co., Syracuse, and Anthony Caquatto, manager, Pittsburgh Casing Co.
2. Chester Pierson, superintendent, Tobin Packing Co., Estherville, Ia.; H. H. Meyer, president, H. H. Meyer Packing Co., Cincinnati, and O. J. McKirchy, office manager, Tobin at Estherville.
3. D. G. Lacy, research, and William Kasper, canned meats, Chicago, with W. H. Norris, Cedar Rapids, Wilson & Co.
4. D. J. Krumm, engineering, and H. C. Dormitzer, general superintendent's department, Wilson & Co., Chicago.
5. George W. Cook, president, Emmart Packing Co., Louisville, and Laurence Pfaelzer, president, Independent Casing Co.
6. Ellard Pfaelzer, vice president, Pfaelzer Bros., Chicago, and G. L. Haydon, general manager, lamb and veal, Armour and Company, Chicago.
7. Ray Sztuk, sales manager, Kowalski Sausage Co., Detroit, and George L. Barthel, president, Barthel Provision Co., Jackson, Miss.
8. Al Levin, Goldsmith Pickle Co., Chicago, and Lou Ambler, purchasing agent, Wilson & Co., Chicago.
9. Edwin E. Schwitzke, secretary, Trunz, Inc., Brooklyn, and J. Goldberg, meat purchasing, Food Fair Stores.
10. Sami S. Svendsen and James A. Martin, brokers, Chicago.
11. Dr. K. F. Mattil, fat and oil research, and H. C. Black, assistant research director, Swift & Company.
12. Frank Luebbe and Harry Freeman, Midwest Textiles, Inc., Cincinnati.
13. Martin MacDonald, general manager, Eckert Packing Co., Henderson, Ky., with Mrs. MacDonald.
14. George H. Stroebel, president, Chas. Hess Sausage & Provision Co., Milwaukee, and Mrs. Stroebel.
15. Ed Gazaway, sausage department, and Norb Erasime, assistant superintendent, Louisville Provision Co., Louisville.



Meeting Pacemakers

1. Lester E. Thornton, assistant manager, and K. F. Stepleton, president, Continental Freezers of Illinois, Chicago, with Paul A. Vollmer, general superintendent, Produce Terminal Cold Storage Co.
2. Michael Tackeff, treasurer; Bertram Tackeff, vice president, and Milton Berger, New England Provision Co.
3. Walter Monkiewicz, secretary; Ray Monkiewicz, president, and Joe Szydlik, plant superintendent, K. Monkiewicz & Co.
4. E. E. Eckert, engineer; O. L. Marquesen, manager, Ft. Dodge division, and R. A. Bateman, purchasing agent, all Hormel.
5. W. J. Fullen, chemist, Geo. A. Hormel & Co.; Milton Rosenthaler, vice president, Sucher Packing Co., Dayton, and A. J. Steffen, Wilson & Co.
6. Bob Tartow, Standard Casing Co., New York; Henry Korab, president, Pasco Meat Products Co., Newark, and Daniel Koss, secretary, Standard Casing Co.
7. John E. Groneck, provision manager, Krey Packing Co., St. Louis; Dr. H. R. Kraybill, director, AMIF, and H. R. Davis, Libby McNeill & Libby.
8. Ivan Heymans, president, Atmos Corp., Chicago; Max Chernis, president, Boston Sausage & Provision Co., and Lee Wallace, Atmos Corp.
9. E. S. Foran, D. G. Lacy and Curt Shafer, Wilson & Co.
10. Le Roy Alfreds, Griffith Laboratories, Inc., Chicago, and A. L. Short, Zenith Meat Co., Los Angeles, with Mrs. Short.
11. W. M. Curtis, superintendent, Scioto Provision Co., Newark, Ohio; L. D. Flavell, vice president, Du Quoin Packing Co., and H. B. Huntington, Scioto president.
12. Walter Nelson, mechanical superintendent, John Morrell & Co., Sioux Falls; H. A. Ripkey, Elpar Engineering Co., Chicago, and E. C. Pfaffhausen, Industrial Air Conditioning Systems, Chicago.
13. H. H. Young, assistant director of research, and J. L. Ohlson, Swift & Co.
14. Ruff M. Lamon, manager, Bryan Bros. Packing Co., West Point, Miss.; Jack McDonald, merchandising consultant, Madison, and J. H. Bryan, Bryan Bros.





PACKINGTOWN PORTRAITS

1. Dr. F. W. Sollo, head of chemical engineering research, and H. H. Young, assistant director of research, Swift & Company, and G. A. Aikins, Armour and Co.
2. Mihran Hopian and Daniel Schwenger, owner, Michigan Butchers Supply, Detroit, and H. E. Seideman, sales manager, Enterprise Mfg. Co., Philadelphia.
3. R. C. Schoen and M. J. De Bella, Wilson & Co., and R. W. Wesslund, Swift.
4. C. W. Kegerreis, superintendent, and Clarence E. Hitz, Hershey Abattoir, Hershey, Pa., with J. H. Fitzpatrick, Griffith Laboratories, Inc., Newark.
5. R. D. Folk, commodity manager, American Can Co.; W. J. Foell, president, Foell Packing Co., and Edward T. Clair, president, Republic Food Products Co.
6. Harry M. Shulman, consulting engineer, Detroit; R. J. Measel, purchasing agent, Hammond Standish & Co., Detroit, and Dan Summer, Bobbin-Kadison Laboratories.
7. F. H. Kimball, manager, pliofilm sales development, and T. F. McCormish, both of Goodyear Tire & Rubber Co., Akron, with Thomas Bush, Armour and Company.
8. Harry Batt, partner, Philadelphia Boneless Beef Co., Philadelphia; Herman Rubin, partner, Southern Beef Co., and Mrs. Rubin.
9. Dick Brandter, D. D. Drews and M. B. Green, general sales manager, U. S. Thermo Control Co., Minneapolis.
10. Henry J. Kruse, president, Seattle Packing Co., Seattle; J. D. Pepper, vice president, Pepper Packing Co., Denver, and Al Salmon, A. Salmon & Sons.
11. Lee Briechle, superintendent, Standard Sausage Co., Minneapolis; N. B. Berkowitz, Berth. Levi & Co., Chicago, and W. T. Johnson, president of Standard.
12. C. A. Rheinberger, A. L. Scott and J. C. Agar, Swift & Company, Chicago.
13. Bill Flynn, president, Corrigan and Co., Omaha; Gene Wood, Livestock Freight Traffic Service, Los Angeles, and Frank Mulcahy, livestock buyer, Krey Pkg. Co.
14. George Foster, Wm. J. Stange Co., Montgomery, Ala.; Lee Browning, Paramount Paper Products Co.; Chicago, and Al Mills, Stange at Los Angeles.



Maine to California

1. Albert F. Goetze, president, Albert F. Goetze, Inc., Baltimore, and G. William Birrell, president, Kunzler & Company, Inc., Lancaster, Pa.
2. George M. Lewis, AMI vice president, and J. L. (Fritz) Roberts, president, Sunnyland Packing Co., Thomasville, Ga.
3. Eugene Meyer, jr., vice president, and Eugene Meyer, sr., president, Illinois Packing Co., Chicago.
4. John Allbright and Norman Allbright, both of Allbright-Nell Co., Chicago.
5. John Krey Stephens, vice president, Krey Packing Co., and John J. Faust, St. Louis Meat Packers Assn., St. Louis.
6. Leonard Slotkowski, secretary-treasurer, and Joseph Slotkowski, president, Slotkowski Sausage Co., Chicago, with M. J. De Bella, Wilson & Co. The Slotkowski's were participants in the AMI natural casting contest.
7. Howard Reese and George Wurster, partners, Pureta Sausage Co., Sacramento.
8. Sam Raone, advertising manager, Oppenheimer Casing Co., and Ed Fessel, advertising manager, Louisville Provision Co.
9. John Humphrey, secretary, Henry Fischer Packing Co., and Ted Broecker, president, Louisville Provision Co.
10. R. C. Theurer, president, Theurer Norton Provision Co., Cleveland, and Murray T. Morgan, business consultant, Washington.
11. John Munro, sales manager, Chicago, and W. H. Norris, sausage division, Cedar Rapids, both of Wilson & Co.
12. Lorenz Neuhoff, jr., president, Valleydale Packers, Inc., Salem, Va., and Urban Reising, vice president, Emge Packing Co.
13. R. E. Sthen, president, John Kern & Son, Portland, Me.; C. K. Elliott, president, Elliott Livestock Co., Mt. Victory, Ohio, and George D. Collins, general manager of Kern.
14. W. A. Barnette, jr., vice president, Greenwood Packing Plant, Greenwood, S. C.; Ralph Wilford, plant superintendent, Klarer Provision Co., Louisville, and Clarence Hinsdale, general manager of Klarer.





Flash-And You're In

1. R. G. Plager, manager, agricultural service, John Morrel & Co., Ottumwa; Leo Stone, Geo. A. Hormel & Co., Austin, and Frank Crabb, Kingan Inc.
2. Charles Dohm and Daniel Dohm, jr., president, Dohm & Nelke, Inc., St. Louis, and C. L. Abrams, Phil Hantover, Inc.
3. Paul J. Burch, treasurer, Stark, Wetzel & Co., Inc., Walter Nolte, livestock order buyer, Kennett-Murray & Co., and Richard T. Kreusser, Indianapolis Stock Yards.
4. H. E. Sparks, superintendent, John J. Felin & Co., Philadelphia; Robert Hoffmann, sales manager, North Side Packing Co., Pittsburgh, and William F. Fried, Fried and Reineman Packing Co.
5. J. C. Luehrsen, sales manager; Lloyd Winger, president, and Walter Winger, vice president, Winger Mfg. Co.
6. William W. Lasky, plant manager, Canada Packers, Ltd., Toronto; Jacob Foster, II, president and Martin F. Hughes, sales manager, Foster Beef Co.
7. Jack Lotstein, secretary, and Louis Lotstein, president, both of Hartford Provision Co., and Lee Wallace, Atmos Corp.
8. Rufus Kiolbassa, owner, Kiolbassa Provision Co., San Antonio, and Mrs. Kiolbassa, and R. W. Burnell, Rath Pkg. Co.
9. Dr. Julius Schuelein, Vegex Co., New York City; William Blohm, owner, Butcher & Packer Supply Co., and Mrs. Blohm.
10. Hank Lotka, sales manager, Visking Corp., Chicago; Charles H. Wallace, president, and N. O. Newcomb, vice president, Cleveland Provision Co., Cleveland, Ohio.
11. Fred A. Williams, sales manager, and Jack Pemberton, both of C. A. Pemberton & Co., Toronto, with Harry Greenspan.
12. Wick Stephens, AMI, San Francisco; Fred Homan, president, Sierra Meat Co., and Homer Davison, AMI vice president.
13. Robert L. Dellett, Manufacturers Cooperative Assn.; George W. Smale, president, Smale Metal Products Co., and John C. Dinsmore.
14. Robert Farnham, mid-west manager, *Meat & Food Merchandising*, Chicago; T. H. Derby; John Hoppe, M&FM publisher.



Conventioneers All

1. Elmer Kneip, president, Elmer W. Kneip, Inc., Chicago, and Larry N. Clausen, vice president, Consolidated Dressed Beef Co., Philadelphia.
2. Edward H. Oppenheimer, president, and Martin Hirsch, vice president, Oppenheimer Casing Co., Chicago.
3. William A. Scheurer, vice president, and James F. Sullivan, chief engineer, Exact Weight Scale Co., Columbus.
4. Minott P. Pruyn, by-products division, and Gene Peterson, Armour and Company.
5. William (Clay) Barnes, plant superintendent, and Ed. McNeece, Tennessee Packers, Inc., Clarksville, Tenn.
6. R. N. Stewardson, and Eric O. Johnson, jr., sales manager, Inland Wire Products Co., Chicago.
7. Karl Axelson, sales, The Globe Co., Chicago, and Clarence Gruner, charge of sausage production, W. S. Johnson Packing Co., Owensboro, Ky.
8. Fred Seligman and Martin Seligman, president, Concentrated Seasonings, Inc., Middle Village, N. Y.
9. Don Vandend Brink and John De Vries, of Vandend Brink's Grand Rapids.
10. J. G. McKay, president, and Mrs. McKay of Kiwi Coders Corp., Chicago.
11. Bob Bonini, merchandising manager, Marathon Corp., Menasha, and Harvey W. Wernecke, vice president and sales manager, *The National Provisioner*.
12. C. T. Wilson, sales promotion manager, and L. J. Wetherbee, assistant advertising manager, both of Sutherland Paper Co., Kalamazoo.
13. L. E. Ahlsweide, vice president, and A. R. MacDonald, president, Arthur R. MacDonald, Inc., Chicago.
14. George Keyser, midwest sales manager, and Dick Croix, Arkell Safety Bag Co., Chicago.



Deuces and Treys

1. J. W. Crawford, manager, procurement, and R. H. Funke, superintendent, both of Wm. Schluderberg-T. J. Kурдле Co., Baltimore, and Henry Teft, American Meat Institute.
2. H. M. Murray, general provision manager, Canada Packers, Ltd., Toronto, and Mrs. Murray.
3. Les Hansen, Howard A. Kamin and Clark Rose, all of Darling & Co., Chicago.
4. James R. Flanery, secretary, and Thomas L. Flanery, treasurer, both of Flanery Sausage Co., Milbank, S. D.
5. Leo S. Joseph, Hygrade Food Products Corp., Detroit, and R. G. Haynie, vice president, Wilson & Co., Chicago.
6. O. C. Peterson, sales manager, International Minerals & Chemical Corp., Chicago, and Fred Beard, chief of federal meat grading service, USDA.
7. Clarence Hinsdale, general manager, Klarer Provision Co., Louisville, and Mrs. Hinsdale.
8. Mrs. Brink and Robert Brink, owner, R. Brink, Indianapolis.
9. R. E. Mohns, traveling inspector, and Oscar House, beef department, Swift & Company.
10. J. M. Nathe, proprietor, Nathe Wholesale Meat Co., Winona, Minn., and Earl Auerbach, American Meat Institute Foundation.
11. Fred Oppenheimer and A. E. Niedt, vice president, Steelcote Manufacturing Co., St. Louis.
12. J. R. Jones, manager, pork and provisions department, Geo. A. Hormel & Co., Austin; Dan Winter, Quartermaster Market Center, Chicago, and George W. Cook, president, Emmart Packing Co., Louisville.
13. George A. Schmidt, jr., president, Stahl-Meyer, Inc., New York, and Wesley Hardenbergh, president, American Meat Institute.
14. Walter Presswood, vice president, Presswood Bros., Toronto, and Ed Bovey, Grifith Laboratories, Ltd., Toronto.



Camera Glimpses

1. George A. Schmidt, jr., president, and George A. Schmidt, sr., chairman of the board, Stahl-Meyer, Inc., New York.
2. Edward F. Wilson, chairman of the board, and Thomas E. Wilson, retired founder of Wilson & Co.
3. A. D. Donnell, executive vice president, and Howard H. Rath, president, The Rath Packing Co., Waterloo.
4. Albert H. Merkel, president, Merkel, Inc., Jamaica, N. Y., and Harley D. Peet, chairman of the board, Peet Packing Co., Chesaning, Mich.
5. Carl G. Mayer, vice president, Oscar Mayer & Co., Madison, and Edward R. Swem, editor, *The National Provisioner*.
6. Walter J. Best and William D. Donovan of Best & Donovan, Chicago.
7. Floyd Logan, director of public relations, Kingan, Inc., Indianapolis, and Gregory Pietraszek, technical editor, *The National Provisioner*.
8. R. H. Wesslund of Swift & Company, Chicago, with Mrs. Wesslund.
9. William H. Off, machinist, and B. C. Lewis, sales manager, Peters Machinery Co., Chicago.
10. Mark Cox, advertising manager, and Don Smith, consultant, Wilson & Co.
11. H. B. Huntington, president, Scioto Provision Co., Newark, Ohio, and Herb Strauss, Independent Casing Co., Chicago.
12. R. M. Perkins, vice president, and Charles Gartell, both of Linker Machines, Inc., Newark.
13. Vic Figlar and Max Weyer, president, Van Loan & Co., New York.
14. Ralph Daigneau, vice president, Geo. A. Hormel & Co., and Bill Gilliam, Washington representative of AMI.



Around the Meeting

1. M. E. Rose, Toledo Scale Co., Chicago; John R. Humphrey, secretary, Henry Fischer Packing Co., Louisville, and F. L. Thomas of Toledo Scale.
2. Edward A. Cudahy, chairman of the board, and L. F. Long, president of Cudahy Packing Co., with John Madigan, Madison.
3. E. A. Burchard, Lee R. Swift and John Keth, Sylvania Division, American Viscose Corp.
4. Jack J. Stavely, Harry H. Touloukian and Edward H. Touloukian, Massachusetts Importing Co., Boston.
5. G. R. Garner, vice president, East Tennessee Packing Co., Knoxville; W. F. Price, retired vice president, Jacob Dold Packing Co., Buffalo, and E. D. Henneberry, president, Hull & Dillon Packing Co., Pittsburgh, Kan.
6. Rolland Morin, secretary-treasurer, Salaison Maisonneuve, Ltd., Montreal; Bob Thivierge, Griffith Laboratories, Inc., and Adelme Dumontier of Salaison Maisonneuve.
7. Mike Baker, Berth. Levi & Co., Chicago, with Mrs. Baker.
8. Karl Kubaugh, The Allbright-Nell Co., and Leo R. McQueen, sales manager, The Globe Co., Chicago.
9. Chester A. Olsen, president, Chester A. Olsen, Inc., Chicago, and Mrs. Olsen.
10. Albert J. Kraemer and Charles Pavia, Pavia Process Inc., Washington.
11. T. O. Lester and Bob Warner, Chicago, both of Tranter Manufacturing Co.
12. Mrs. James M. Evans, and Mrs. Emil A. Schmidt, The Schmidt Provisioner Co., Toledo.
13. Sylvan E. May, vice president, Patent Casing Co., Chicago, and Mrs. May.



Maynard Tipper, vice president; Al Steckman, sales manager, and Ben Orr, all of Tipper Tie, Inc., Union, N. J.



W. W. Naumer, president, De Quoin Packing Co., Du Quoin, Ill.; Chick Settlage, Haeseler Construction Co., St. Louis, and Louis Menges, president, Lou Menges Organization, Basking Ridge, N. J.



James O. Strigle, president, J. O. Spice & Cure Co., Baltimore; Lewis Alderfer, owner, and La Verne Keller, both of Harleyville Bologna Co., Harleyville, Pa.



George W. Mills, livestock buyer; George Dickson, provision manager, and William W. Lasky, plant manager, all of Canada Packers Ltd., Toronto.



I. R. T. Herbison, superintendent, Chicago; W. Stenzel, assistant superintendent, Chicago; D. Gledhill, trading manager, Danville, Ill.; J. P. Marzano, office manager, Chicago, all of Wm. Davies Co., Inc., and A. F. Jaumann, Leland Chemical Co., Milwaukee.

2. Steve Greenfield, Oppenheimer Casing Co., New York; Maurice Mades, president, and Richard Mades, vice president, Somerville, Mass.; Sid Lang, president, Columbia Packing Co., Boston, and Andy Brodecki, vice president, Packers Laboratories, Inc., Boston.

3. William A. Blackburn, Montreal; Carl W. Matson, Chicago; Dr. C. M. Hollinbeck, research, Rahway; William A. Rothermel, Chicago; E. J. Packard, Rahway, and John R. Warren, Chicago, all of Merck & Co.

4. W. S. Foran, Curr Shafer and D. G. Lacy, all of Wilson & Co., Chicago; V. R. Rupp, manager quality control, Kingan, Inc., Indianapolis, and S. N. Grice, general superintendent's office, Wilson & Co., Chicago.

5. Ray Cuff, regional manager of Livestock Conservation, Inc., Kansas City; Frank Knutzen, head hog buyer, Swift & Company, Chicago; Wilbur Coulas, American Meat Institute; Harold Stone, head hog buyer, Rath Packing Co., Waterloo; Dr. Ronald Pickard, general manager, Livestock Conservation, Inc., and J. C. Rosse, regional manager of Livestock Conservation, Omaha.

6. Mrs. J. B. Harrison, C. A. Durr Packing Co., Utica, N. Y.; Mrs. Felix Cristion, Packers Management Engineering Co., Levittown, Pa.; Jack Shribman, Premier Casing Co.; Mrs. D. J. Harrison, chairman of the board, and Mrs. I. S. Harrison, both of C. A. Durr Packing Co., and Sam Isaac, manager, Independent Casing Corp., New York.



Standers and Sitters

1. Albert Stand, assistant casing department manager, Armour and Company; Peter Kuntz, president, Kuntz Casing Co., Cincinnati, and G. H. Krohn, Cudahy Packing Co.
2. Arthur Sigman, president, Sigman Meat Co., Denver; Leonard J. Hantover, vice president, Phil Hantover, Inc., Kansas City, and Albert Miltenberger, vice president of Sigman.
3. E. H. Nicholson, manager, special business division, H. A. Heckel, and Russell Tarver, U. S. Slicing Machine Co., La Porte.
4. John Copeland, Dewey & Almy Chemical Co., Corsicana, Tex.; John T. Keene, general manager, Ed Auge Packing Co., San Antonio, and Richard L. Jones of Dewey & Almy, Ft. Worth.
5. J. V. Everard, supervisor special sales; Mrs. Everard and Pete Braun, A. E. Staley Manufacturing Co., Decatur.
6. Helen Kleinert, United Provision Co., Philadelphia; Ann Kachmarik, American Stores Co., and Winnie Remeis, Girard Packing Co., Philadelphia.
7. R. W. Wade, general superintendent of all plants; Harry C. Homer, production supervisor, and Frank E. Hand, all of Stark, Wetzel & Co., Indianapolis.
8. W. E. Hoagland, Marhoefer Packing Co., Muncie; L. N. Clausen, vice president, Consolidated Dressed Beef Co., Philadelphia, and L. L. Needham, manager, Rath Packing Co., Glenwood, Ia.
9. Edward Ochylski, jr., president, Belvedere Inc., Fraser, Mich., and Mrs. Ochylski.
10. Henry A. Bernhard, sausage foreman, Albany; J. G. Kalbfleisch, Buffalo, and Robert N. Peck, treasurer and comptroller, Rochester, Tobin Packing Co.
11. Mrs. Clarence Pastoor, Mrs. Henry Busch, and Mrs. Ted Everse, all of Holland Meat Co., Holland, Mich.
12. C. H. Bowers, chairman of the board; John McCrum, buyer, and J. M. Crandell, general manager, all of Rosevale Packing Company, De Witt, Mich.



"See! I was There"

1. J. J. Swick, president, Copeland Sausage Co., Alachua, Fla.; J. B. Hawkins, manager, Lykes Bros., Inc., Tampa, and Ernst Hinterkopf, president, Dirr Sausage Factory, Miami.
2. P. D. Bartholomew, Griffith Laboratories, Inc., Chicago; William King, president, Valley Pride Packing Co., Huntsville, Ala., and Starr Parker, engineer, Cincinnati Butchers' Supply Co., Atlanta.
3. Robert Goetze, secretary, and Albert F. Goetze, jr., treasurer, both of Albert F. Goetze, Inc., Baltimore.
4. C. D. Ackerman, and R. C. Blackburn, both of Traver Corp., Chicago.
5. Robert E. Davies, *The National Provisioner*; Ev Shelby, Malanco, Inc., Chicago, and Harvey W. Wernecke, NP vice president and sales manager.
6. Mrs. John C. Dinsmore of Chicago.
7. W. H. McCormac, V. D. Anderson Co., Cleveland, and W. G. Betzner, president, Filter Fabrics, Inc., Cleveland.
8. L. C. Stix, jr., president, and Jack Shribman, eastern sales manager, Premier Casing Co.
9. R. H. Marks, vice president, and Ray Carroll, sales manager, Enterprise Incorporated, Dallas.
10. A. R. Borchers, Griffith Laboratories, Inc., Portland, Ore., and E. S. Holmes, John R. Dailey, Inc., Missoula, Mont.
11. Mary Brewer and Mrs. Charles L. Abrams, both of Phil Hantover, Inc., Kansas City.
12. Mrs. Austin Sheehy, Stadler Packing Co., Columbus, Ind., and Harry Murphy, Buckeye Molding Co., Miamisburg, Ohio.
13. Flora and Seymour Goldberg, United Butcher Supply Co., Toledo, O.
14. John Sommer, president, Variety Sausage Co., San Francisco, and Charles J. Hoerner, partner, S. Blondheim & Co., San Francisco.



1. Dave L. Saylor, president, Luer Bros. Packing Co., Alton, Ill.
2. Dr. A. O. Lundell, sales manager, Allbright-Nell Co., Chicago.

3. Harold E. Pim, manager meat packing division, International Business Machines Corp., New York.
4. A. N. Horwich, president, Horwich, Vitkin Co., Chicago.

5. Miss Stella Beesley, founder, Beesley Packing Co., Andalusia, Ala.
6. R. A. Wesley, district manager, Chicago, Rhinelander Paper Co.

7. William Greenhouse, president, Pilgrim Packing Co., Syracuse, N. Y.
8. Roy Lundberg, advertising manager, Milprint, Inc., Milwaukee.



1. J. B. Sabean, vice president, John E. Smith's Sons Co., Buffalo; M. C. Phillips, vice president, Griffith Laboratories, Inc., Chicago; A. Z. Baker, president, American Stock Yards Association, Cleveland; Alex J. McCrea, president, and Jack L. Mitchell, accountant, Ohio Provision Co., Cleveland.

2. T. R. Bradley, manager, institutional department, Rath Packing Co., Waterloo; E. T. Randolph, Market Editor, THE NATIONAL PROVISIONER; DAILY MARKET & NEWS SERVICE; Leo Barron of Rath; R. L. Fletcher, provision manager, Oscar Mayer & Co., Madison, and Frank Wylie, assistant manager, provision department of Rath.

3. Anton L. Heeb, plant superintendent, Dirr Sausage Factory, Miami, Fla.; J. B. Hawkins, manager, Lykes Bros., Inc., Tampa; Clarence Hinsdale, general manager, Klarer Provision Co., Louisville; W. T. Megginson, Visking Corp., and Ernest Hinterkopf, general manager, Dirr Sausage Factory.

4. Carl Fischer, president, Henry Fischer Packing Co., Louisville; Martin Edelman, president, and August R. Edelman, secretary, both of Edelman Provision Co., Cincinnati; Albert Young, superintendent of Henry Fischer Packing Co., and Oscar Emge, president, Emge Packing Co., Ft. Branch, Ind.

5. George M. Lewis, American Meat Institute; W. A. Barnette, sr., president, and W. A. Barnette, jr., vice president, Greenwood Packing Plant, Greenwood, S. C.; Walter W. Brown, president, Cherokee Packing Co., Gaffney, S. C., and Charles Thomas, American Meat Institute.

6. Jim Baker, Baker Johnson & Dickinson, Milwaukee; B. J. Killian, vice president, Field Packing Co., Owensboro, Ky.; L. B. Harvard, vice president, Sunnaland Packing Co., Thomasville, Ga.; D. J. Twedell, assistant general manager, Houston Packing Co., Houston, and Hosea Vann, superintendent, Sunnaland Packing Co.

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Sustane
pays off



It's at the cash register where you appreciate the value of Sustane . . . it's when dealers ring up *repeat sales* on products that keep their factory-fresh flavor.

Sustane No. 1-F antioxidant stops rancidity . . . follows through in the finished product. It is completely and readily fat soluble . . . imparts no detectable color, odor or flavor . . . gives long time unrefrigerated protection . . . carries through to baked goods and fried foods.

Sustane No. 1-F is Universal's flaked highly purified butyl hydroxyanisole, manufactured to strict specifications—100% active antioxidant . . . low in cost . . . easy to apply.

PRODUCTS DEPARTMENT

UNIVERSAL OIL PRODUCTS COMPANY
30 ALGONQUIN ROAD, DES PLAINES, ILL., U. S. A.

Sustane #1-F

TRADE MARK ®

Facing Up to It

1. Louis Lotstein, president, Hartford Provision Co., Hartford, Conn.; Glenn Prentiss, beef department, Siegel-Weller Packing Co., Chicago, and Jack Lotstein, secretary of Hartford Provision.
2. Leo Barron, sales director, and Frank Wylie, assistant manager, provision department, Rath Packing Co., Waterloo.
4. Harry Bobsin, president; Barney Kadison, secretary; Sylvan Kadison, vice president, and Stio Forstell, eastern sales manager, all of Bobsin-Kadison Laboratories, Chicago, with Dr. Paul Schoemaker, Chemische Industries, Deventer, Holland.
4. F. E. Faerber, F. I. Ryan, manager, casing department; A. R. White, assistant sales manager, casings division, and D. A. Newton, all of Cudahy Packing Co., Chicago.
5. Bill Borchers, H. J. Mayer & Sons Co., Chicago; Ralph Foldenauer, manager, Livingston Packing Co., Livingston, Mont., and Carl Stav, The Cincinnati Butchers' Supply Co., Seattle.
6. F. J. Bauer, Cedar Rapids; L. H. McLain, Chicago; L. C. Sauter, Minneapolis, and John Munro, sales manager, casing division, Chicago, all of Wilson & Co.
7. Andrew Terry, president, Mongolia Importing Co., New York; H. B. Maker, Armour and Company, Chicago, and L. R. Stupnick, sales manager of Mongolia.
8. M. L. Rosenthal, president, Glendale Provision Co., Detroit and F. W. Griffith, vice president, Griffith Laboratories, Newark,ark.
9. T. H. Watts, E. C. Ward, district manager, and George E. Carll, Rock Island, all of United Cork Companies.
10. Howard Dusz, secretary; Arthur Lavin, treasurer, and W. R. Shetler, sales manager, Sugardale Provision Co., Canton, Ohio.
11. Hans Pensel, superintendent, Brener Packing Co., Mexico City; Len Parry, Griffith Laboratories, Inc., Newark, and Pablo Brener, president, Brener Packing Co.
12. Ray S. Waite, vice president; Ralph Mecum, sales manager, and A. F. Zavodsky, president, all of Aromix Corp., Chicago.
13. F. J. Kocarek and R. H. Freeman, sales manager, both of Miller Wrapping & Sealing Machine Co., with E. J. Robertson, Wilson & Co., Chicago.
14. Joseph Dwyer, William H. (Hank) Bright and Lewis C. Yates, all of Fearn Foods, Inc., Franklin Park, Ill.
15. Harry J. Vibbert, jr.; Harry J. Vibbert, sr., and Jack Vibbert, all of Vibbert & Sons, Detroit.
16. E. K. Hickman, superintendent; George Cross, general superintendent, and Oscar Johnson, superintendent, all of Tobin Packing Co., Albany.
17. Hank Flonacher, Marty Lynn, and Dick Weinman, Transparent Package Co., Chicago.
18. David J. Neubauer, partner, Sterling Packing Co., Sterling, Colo.; J. C. Weinrich, west coast sales manager, Griffith Laboratories, San Francisco, and John Neubauer, partner, Sterling Packing Co.



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Favor-winning Flavor!

SUCCULENT HAMS with the most delicate and distinctive flavor can now be made ready for market more quickly and economically than ever.

The products and techniques making possible this sensational achievement in processing methods result from technological discoveries developed by our extensive research program.



Among the many products for meat processing originated in our research laboratories are the famous

- PRESCO SEASONINGS
- PRESCO FLASH CURE
- PRESCO PICKLING SALT
- BOARS HEAD SUPER SEASONINGS

PRESERVALINE ...HOME OF **PRESCO** PRODUCTS
MANUFACTURING COMPANY
FLEMINGTON • NEW JERSEY

— Since 1877 —

(Continued from page 166)

made known the public will recognize and know that meat is one of the best buys in the market place. The truth is that much of the supply this year has been reaching the consumer at prices that have failed to net the producer cost of production.

This industry has a responsibility for getting the truth about meat, its value and the cost of production squarely before the consuming public. If this is done it will have to be through advertising and educational programs properly planned and executed with the full cooperation of every segment of the industry. This I believe to be the only way in which we can hope to increase the percentage of consumer expendable income devoted to the purchase of our product.

The research which has been conducted up to this time would indicate that the average consumer could benefit by the use of more meat in his diet, and I am sure there are plenty of luxury items now being sold to the American public which contribute neither to the health nor vitality of our people. We believe part of these purchases could be shifted to meat.

There are other fields in which each segment of the industry can be helpful. There should be increased interest in improving the quality of our product and in reducing handling costs to a minimum. To the livestock producer and feeder this offers a continuing program. We recognize that material improvement has been made in our breeding livestock and that there have been shifts in type to meet consumer demand. However, you need spend only a day or two on any of our markets to recognize there are still a number of bulls running loose on our farms and ranches that should have been sold as vealers or steered early in life. The quality of the average animal reaching our markets is still far below the standard which thousands of our farmers have reached in their production programs.

The meat-type hog has proved beyond any question of doubt that it supplies the type of chops and other retail cuts desired by consumers, and there has been ample demonstration of the willingness of consumers to pay more for these retail cuts from the meat-type hog than they are willing to pay for cuts from the fat-type or



Robert D. Handley, director of advertising; H. T. Holbrook, general manager; R. G. Griffey, Chicago; W. W. Roberts, sales manager; Bill Young, and W. W. Yocom, Chicago district sales manager, all of Standard Packaging Corp., Flex-Vac Division, New York.

average hog. All producers can help to raise the level of pork prices by improving their breeding programs and shifting their feeding operations so as to produce the desired type of pork.

From a feeding standpoint, particularly in cattle, the consuming public would benefit from a program that would permit the use of more corn and other concentrated feeds in our production of beef. However, cost is a limiting factor, and both cattle and sheep producers will find that they can contribute more to the lowering of the costs of production by making more use of grasses and other forage crops in the production of beef and lamb. Real progress has been made in this direction and we recommend further research and favor greater use of information which we now have available to our growers through the research and extension work of our land grant colleges.

In the field of marketing, both livestock producers and processors can do much to reduce costs and possibly improve service. The task of assembling, grading, pricing and weighing of the live animals is not in itself complicated nor difficult. However, there is much ground for improvement. The producers and feeders should give more thought and consideration to the cost and efficiency of their marketing systems. They should realize that the expense of all the markets and all the sales agencies is paid by the producers and owners of the livestock offered. This industry can ill afford to support inefficiency in the marketing end of its business. The livestock producer should demand of his markets and sales agencies efficient and effective service. Working together, the livestock producers can concentrate their volume into units which will more effectively serve their interest from a bargaining standpoint and at the same time reduce their per unit marketing cost.

More research and closer cooperation between producers and feeders will assist in permitting them to continue a maximum production of animals. A dollar saved in marketing expense adds to the farmers' income, and an additional nickel or dime a hundred secured through added bargaining power can mean the difference between a loss or a profit for a year's operations.

I will make no attempt in this brief statement to offer suggestions for improvement in either the processing or retailing end of the business other than to point out



FRONT ROW: Ralph H. Tucker, assistant sales manager; Harry H. Cooper and James K. Broke. Back Row: Dave Lindsey, Montreal; Ralph Garson, technical sales, Cambridge; David H. Taylor, sales manager, Cambridge, and Howard Winters, west coast sales manager, San Leandro, Cal., all of Dewey & Almy Chemical Co.



Carroll Plager, manager, livestock extension division, Geo. A. Hormel & Co., and Wilbur Coulitas, associate director, Livestock department of the Institute.



Preston Stowell; Mrs. Stowell; Normal Brammall, president; Mrs. Brammall; W. W. Bystedt, industrial engineer, all of Food Management, Inc., Cincinnati, and Albert F. Goetze, Jr., general superintendent, Albert F. Goetze Co., Baltimore.



Chuck Hutchison, Milprint, Inc., Milwaukee, and Robert C. Munnecke, president, The P. Brennan Co., Chicago, filling out convention registration card.

that any improvement in the production and marketing programs will be of little avail and can be completely lost unless the utmost efficiency is obtained in the processing and retailing segments of the industry. We do believe that the processors can make a real contribution to improvements at the marketing level in giving complete cooperation from the buying side of the market to any sound program which is undertaken to reduce costs and improve efficiency at the market level. In other words, the sales side of this business cannot make maximum improvement in the markets unless they have the cooperation of the buyers.

I would like to call to your attention the need for further study of the present government grading program which was recently returned to a voluntary basis. We have supported government grades and are firmly of the opinion that, if processors or retailers are going to offer graded meat to their customers, in the interest of uniformity these grades and grade names should bear a definite relationship to the government standards which have been established.

We do not accept the theory that government grading of meat is a guarantee of protection to the consumers of this country, and there is a question in our minds as to the soundness of a program that depends on a government employee to establish the grade on the product we handle and which, in turn, is handled by the processors and retailers. Stated more simply—we are firm believers in a government standard of grades but question the value and soundness of a government grading program.

In times of stress, particularly when a great segment of our producers has been operating at a loss, it is only natural for individuals and groups to be urging the government to investigate. Recently all of you read the report that the Department of Agriculture is going to make a study of the spread between the price of live animals and the price of meat at retail levels. We have noted that the Institute has indicated it welcomes such a study by the Department. We are hopeful that the retail and distribution segment of the industry will respond favorably to this move on the part of the secretary of agriculture.

At the same time, we would like to urge that the secretary, in setting up this study, provide for an exhaustive analysis, digging into the cost of every field of production and distribution. We strongly urge that the packing industry, the transportation services, wholesaling and

retailing organizations be permitted to make the best use of our labor-saving machinery and that, insofar as possible, "featherbedding" be eliminated from the industry.

Speaking very frankly, we doubt that the industry, under labor restrictions, has been able to make full use of our modern equipment. Also, that our stores, in the distribution and retailing of meat, have been free to handle this product on a volume basis in the most economical way. We are confident that if the Department of Agriculture goes to the limit in analyzing the costs involved in processing and distributing meat, they will find many places where economies can be effected if the product is handled in a free and open market. At least we recommend that this study be complete in every detail and that the report be made available to the public.

Now in summing up, I would like to stress again that maximum production and maximum use of meat can only be had in a free market and we must solve the problem which has been brought on by high government guaranteed food prices by adjusting these prices so that the product will move into consumption rather than into government storage and burdensome surpluses, that any savings which can be made at any level of production, transportation, processing or distribution, will be helpful in maintaining maximum production and assuring our people of the supply of meat they need.

And last but not least, that as meat is essential to the health and vitality of our people, it should merit a greater percentage of the expendable income of our people than the 5 or 6 per cent they are now spending for meat, that this industry and all of its segments should join in an expanded program of advertising and publicity to carry the true story of meat and its value to the consumer.

Douglas Peet, vice president, Peet Packing Co., Chassaning, Mich.; U. S. Senator Milton R. Young of North Dakota, and Harley D. Peet, president, Peet Packing Co.



Cheaper, Better Meat By Research



DR. A. J. DYER

DILIGENT INVESTIGATION and careful, critical examination in seeking facts and principles characterize good research. Our future advances in agriculture depend on it. Throughout this country research workers are consecrated to unveiling new facts of assistance to the livestock industry in general.

All livestock research, whether it be of fundamental or applied nature, should have as its ultimate goal, information that will enable the livestock industry to operate more efficiently and profitably. Some research findings do not have ready application and their value may remain unrecognized for long periods—for example, the discovery of penicillin was made 20 years ago and had to be rediscovered actually before its value was recognized.

It is not unusual for applied research to lag behind fundamental research. Only within the past 10 to 15 years have the findings made 25 and in some cases 50 years ago been put into practice to an appreciable degree. But now, the situation has changed—new findings are widely publicized and used. Research is time consuming and requires adequate financing.

Some bears fruit in a short time; other research is slow, laborious and sometimes almost disheartening. The group that is present today surely must recognize and appraise research for its true worth. A research worker is ambitious to find new facts that will serve the industry and partly in order to gain recognition.

But there is some danger; namely, that some preliminary findings inadequately tested are publicized which prove later to be a bit embarrassing. Careful, critical examination and verification of results characterize all good research. For much of the information which is to be discussed briefly today, I am indebted to contemporary research workers.

Now, to deal with the subject more specifically. No one

LEFT: J. L. Altenau, P. M. Swanstrom, J. D. Keyes, J. E. Brown, Joe H. Collier and P. G. Phillips, all of Custom Food Products Co., Chicago.

RIGHT: In front are George A. Goodpaster, owner, Kramer's Cincinnati; Louis B. Albers, meat specialist, U. S. Air Force, Dayton, Ohio; Leo J. Henry, secretary, Schulz Bros. Co., Cincinnati; Charles Bauer, owner, Bauer's Meats, Cincinnati, and Fred E. Unger, owner, F. Unger Sons, Cincinnati. REAR: Tom Wallace, Peters Sausage Co., Detroit.

knows for sure what the blueprint will be for tomorrow, but it would be based on today's established facts and the exercise of foresight as to what may reasonably be expected in the future.

With regard to livestock research, it can be put in one of the following categories, namely: (1) Nutrition, (2) Genetics, (3) Meat, (4) Disease control, and (5) Management. The latter may be questioned by some—it actually amounts to finding the ways in which research can be best applied. Take it or omit it, management still is one of the key factors governing success or failure of applied research.

Management must be selective; it must be critical of all findings and then fit them into a pattern of production. Sometimes the reverse is true; namely, fit the pattern of production to the findings. Actually, all the fields of research are related in some ways and the findings in all categories must be integrated for proper application.

The development of the type and kind of livestock which will meet the consumer's demand for a quality product and the producer's demand for an efficient animal has been the ultimate objective of many genetic studies. The modern meat-type hog, "good-doing" cattle that produce top carcasses, plump, heavily muscled broilers at a young age, the best type of sheep to produce—these have been some of the objectives and all will agree that much success has been attained.

With regard to meat-type hogs, one at the University of Missouri has received a great deal of publicity. It was because she made such fast gains, e.g., at four months of age she weighed 201 lbs., maybe a record. Records are made to be broken, of course. At Missouri, we are more impressed by the 126 pigs, including the "publicity gal," which averaged 200 lbs. at 147½ days of age and required 4.4 bu. of corn and 97 lbs. of supplement to make 100 lbs. of gain.

Researchers at other institutions have secured comparable results. The cause for this—many things! Generations of carefully selected foundation stock, heterosis, a ration made up of ingredients based on all the knowledge secured by workers everywhere over a long period of time, superb sanitation and good management.

Some might have a tendency to attribute this good record to only one thing—the thing which fits best into his interest. But it was the combination of all that did it. So far, no pigs have done as well since. The pigs were strictly meat type and the feed requirements were relatively low. Too frequently the hog producer has had the opinion that meat-type hogs required too much feed to produce a unit of gain. Basically, there is no conflict of thought if both have the same conception of meat type.

Meat-type hogs are long but heavily muscled and fairly wide from body structure and muscle. White meat is not



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SOME OF THE 50-YEAR veterans who received gold buttons at a convention ceremony.

desired by the consumer, but he is willing to pay for red meat. A greater appreciation at the market for meat-type hogs marked by even stronger competition for them would help to speed the change to more meat type hogs on farms.

The broiler industry is tough competition to all meat animal production. A 2 3/4 to 3 lb. broiler at 8 1/2 to 10 weeks of age produced on 2 3/4 pounds of feed per pound of gain is enough to justify this statement. Even more economical production will be obtained. Besides that, fried chicken in general tastes pretty good.

The existence of dwarfism in cattle—in all beef breeds—is a disturbing fact, but may at times have been given too much importance. Geneticists are studying this problem diligently and will obtain information on either how to avoid it, how to live with it, or how to get rid of it. Much information has been gathered that sheds light on this problem.

Beef cattle breeding research, by nature slower than swine breeding research, will yield principles that can be applied to secure more efficient and at the same time, highly satisfactory beef cattle. Size has been greatly emphasized and is important, but the percentage of weight that is in the valuable cuts and the quality of the product should concurrently be given important consideration. This is being done in much of the work. The middle of the road so far as size is concerned, seems best.

Other highlights in animal breeding might be mentioned but time does not permit. Nutritional research is usually more readily productive—that is its nature.

The role of antibiotics in swine nutrition has been well established and is a boon to the industry, quickly adopted by all concerned at almost jet-speed. The use of hormones in livestock rations may be highly productive but the long time effects of their use on animals and upon the people who might consume the resultant animal products has not been determined. As yet, hormone use is not permitted in livestock rations. This may be a proper attitude. Many expect that research with amino acids in swine and poultry rations will prove very productive.

Fat—there seems to be too much of it! Too much butterfat, too much lard, too much tallow. For a long time, lard has been a headache for the meat packer and others; butter seems to be a headache for the U. S. Government and dairymen, and tallow is a problem for the retail butcher, packer and renderer.

Recently, use has been made of animal fats in livestock rations, in some cases up to 15 per cent of the ration, and has given satisfactory results. Usually, when so included in the ration, the amount of feed required per 100 lbs. gain is lowered. This should be expected so long as the ration remains palatable and digested, because fat is a highly concentrated source of energy and a lot of concentrates were required to make it.

As long as the price of fats remains low, we may expect them to be used, it seems. But demand seems to have a bullish effect on price. Up to a point, it will be used—beyond, perhaps not. The manager of the livestock research division of Ralston Purine Company has this to say, in effect:

"We should . . . consider the economics . . . isn't that a limiting factor to a lot of the ingredients that might be fed to livestock. Their use (fats) in livestock rations will tend to stabilize the price for that ingredient. On the other hand, if increased amounts are used, supply and demand will enter into the picture and the price will be forced upward. There would be a limit to what the feed industry can afford to pay."

This otherwise waste fat took a great deal of feed to produce. In some cases animals should never have been made so fat from the standpoint of economics. In consumer preference studies conducted in Columbia, Mo., loin chops, cured and smoked center cut ham slices and cured sliced bacon from Choice No. 1 hogs and from Medium hogs were offered to housewives in 400 homes.

They expressed their preference based on visual inspection and then were given samples from both to prepare, eat, and compare in their homes. The majority preferred Medium grade to U. S. Choice No. 1.

Similarly, in a beef study, wherein the consumer had his preference of either Prime, Choice, Good or Commercial, the consumers chose steaks of Commercial, Good and Choice grade in that order. Their order of preference for roasts was Good, Choice, Commercial.

Maybe the consuming public wants even less fat than we might believe. Excess fat is expensive to make, and the consumer pays for it.

A Choice steer has a dressing percentage of 60 for the packer. For the retailer, the dressing percentage on the same steer is approximately 45 because that is what he has to sell. Part of this (about 12 per cent) difference is in trimmings. This inference, of course, poses a problem:



Tim Halpin, sales, Preservaline Mfg., Co., Flemington, N.J.; John Sharak, sausage foreman, Binghamton Sausage Co., Binghamton, N.Y.; Harry C. Stevens, Preservaline; Hugo Matych, vice president, and Stephen Steflik, sausage foreman, both of H'maid Brand, Binghamton, N.Y.

namely, securing quality, etc. without an excess of fat. Can it be done? Maybe.

We may reach a point where we talk about meat-type steers and meat-type lambs as well as meat-type hogs. The cooperation of all concerned in the industry is needed.

Ruminant nutrition is an exceedingly important field of research. Someone has said:

"There is no place darker than the inside of a cow's stomach."

Literally, light has been admitted into that recess. Through fundamental and applied research information will be secured to denote, among other things, how the working conditions for the microorganisms can be improved so that they can make the best possible use of feeds, principally those of poor quality.

Through research will be found a way to unlock the energy that is in feeds. It may lead to a solution of the problem of bloat which occurs on some types of pastures. Much fruitful work has been done to improve the "social standing" of corn cobs, straw, corn stover and other similar feeds and this is extremely important.

The fact remains that the cost of gain produced by these feeds, in most instances, is as costly as with normally used feeds—silage, legume hay, etc., and sometimes not

as profitable. The information is invaluable, however, and will be used extensively in the drought areas this year.

Roughage and pasture utilization—the extent to which these may be used to produce fat cattle and lambs and sustain breeding ewes and cows is one of the important advances that, in the years ahead, will play an important part in agricultural production. Pastures, in many areas can be relied upon to make the major portion of the gain required to fatten cattle.

Eighty per cent and sometimes more of the total gain required to finish two year old steers to the grade of Choice has been made from roughage and pasture in trials at Missouri. From 6 to 15 bu. of corn were required to finish these steers at weights of 1200 to 1300 lbs. and Choice grade, fat cattle. In this business of pasture and roughage utilization, management is of utmost importance.

The winter ration and management should be done with one eye on the anticipated summer pasture performance because the rate of gain that cattle make on pasture is dependent more on how fast they gained in winter than any other single factor. Easily—it is the combined gain, winter and summer, that is a very important consideration because that indicates rather accurately the finish of the cattle at the end of the grazing season.

For example, in tests wherein cattle were fed in winter to produce a daily gain of $1\frac{1}{2}$ lbs. and others to gain 2/10 lb. and then all grazed together, the summer gains were much faster for the latter group, but even so, the cattle were 100 lbs. lighter at the close of the grazing season, and they required 37 bu. of corn compared with 10 to finish to the grade of choice. They sold when the market price was lower. Keep them gaining seems best.

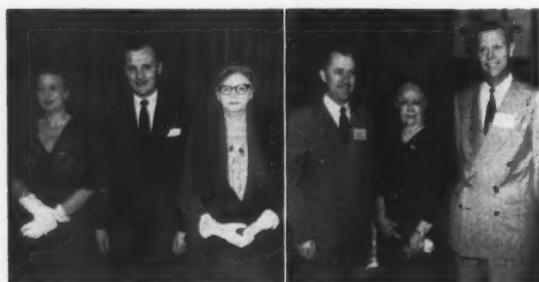
Nutritious forage in adequate amount during July and August is difficult to provide but nevertheless characterizes a good pasture system in the midwest. Complete failure occurs without adequate moisture. In connection with roughage and pasture utilization, here are some questions that have been or will be studied. How should legume silage be supplemented for best results? Legume silage fed alone to feeder cattle does not give good results—the trick is to find how it should be supplemented.

Each kind of silage has shortcomings which must be offset by the proper supplementation to secure the desired results.

Research into whether forage can profitably be taken from the field to the livestock rather than the livestock to the forage will get due consideration. The possibility of providing winter forage for both beef cattle and sheep is currently being studied. In these studies and others, the agronomist and the livestock researchers must work together. Good research is characterized by combined effort.

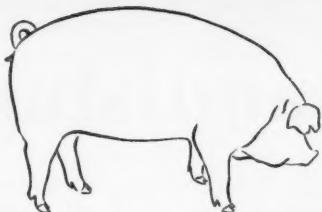
This has been an effort to indicate what seems to be some of the important problems that will bring fruitful results. It is realized that many items may have been omitted in this brief space of time.

In closing may I say that all of the research must be weighed and integrated by those who put it to use. The people on farms comprising 15 per cent of the total population producing food and fiber for all look to the researcher for better ways and means to perform his function. In similar fashion, others in closely allied work must depend on research for needed information. The blueprint for tomorrow hasn't been drawn, but one thing is certain, research will play an important part.



LEFT: Mrs. and D. L. Saylor, president, and Mrs. W. J. Luer director, all of Luer Bros. Packing & Ice Co., Alton, Ill.

RIGHT: Max Cullen, director of merchandising department, National Live Stock and Meat Board, Chicago; Mrs. S. K. Maddux, executive assistant of National Committee of 4-H Clubs, Chicago, and Ted Meninge, division sales manager, Kalamazoo Vegetable Parchment Co., Kalamazoo, Mich.



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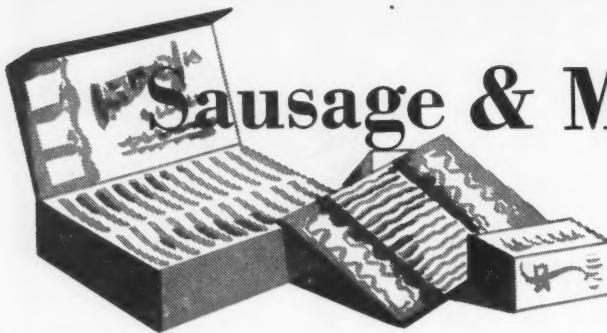
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Most Popular Sizes of Packages



G. M. LEWIS

by several recent surveys.

An annual survey of retail meat operations, by a well-known meat packer, shows that the number of complete self-service retail meat stores increased from 10 stores in 1944 to 178 in 1948, to nearly 2,000 by 1950, almost 5,400 in 1952, and a competent authority from this same company has estimated that the total number of complete self-service stores, as of April, 1953, was probably in the neighborhood of 7,000 stores. It is estimated further by this authority that, although this number of stores represents less than 5 per cent of the number of all retail stores handling fresh meats, they probably account for nearly 20 per cent of current meat sales.¹

In addition to the large number of complete self-service meat stores, there are many so-called partial self-service meat stores, where both self-service cases and over-counter services are available. It is estimated that there are at least three or four partial self-service meat stores for every one store with complete self-service.¹

Another survey on the growth of self-service retail meat stores, recently completed by the National Association of Retail Grocers, shows that slightly more than half the membership (50.3 per cent to be exact) of that organization has converted at least partially to self-service. That survey showed that:

12.5 per cent had meat departments that were completely self-service.

37.8 per cent had meat departments that were semi-self-service.

49.7 per cent had meat departments that were operated on a service basis.

In addition, . . . "a large number of service meat departments stated they were in the process of converting to self-service, or that they planned on converting soon.

"Most Popular Size Packages for Sausage and Meat Specialties" by George M. Lewis, vice president, American Meat Institute — "Pre-Packaging Panel" with Walter Seiler, Karl Seiler & Sons, as moderator and W. G. Andrews, The Grand Union Co.; Harry C. Fauchette, Colonial Stores, Inc.; W. C. Purdy, Jewel Food Stores; Clifford Bowes, National Association of Retail Grocers; Albert F. Goetze, Albert F. Goetze, Inc.; Bertram C. Tackeff, New England Provision Co., and F. C. Danley, Armour and Company, as panel members.

Forty-one and sixteenths per cent of the retailers with semi-self-service said they planned on converting fully.²

Another survey announced earlier this year by *The Progressive Grocer* estimates that the number of individually owned and operated stores with complete self-service meat departments increased 57 per cent during 1952, while individually owned stores, with partial self-service meat departments increased 17 per cent in number during this same period.³

GEOGRAPHICAL LOCATION OF SELF-SERVICE STORES: According to the meat packer's survey previously mentioned, this rapid growth of self-service meat stores has occurred in practically all parts of the country, but the growth has been especially noticeable in the Northeast and Southeast regions of the country. The states that had the largest number of such stores in 1952 were New York, Pennsylvania, Texas, Ohio, New Jersey, California, Florida, Michigan and Maryland. The greatest growth has been in areas of largest concentration in population, because these types of stores are most successful where the traffic volume is large.

SELF-SERVICE STORES HANDLE WIDE VARIETY OF MEATS: It is estimated that over 75 per cent of the grocery business now is conducted on a self-service basis, but the proportion of total meats sold through self-service departments is considerably less—probably about 20 per cent of total meat sales. However, the trend is upward. One large retail meat distributor in the East reports that, since 1946, his company has opened more than 40 new stores, and each one has been operated continuously on a complete self-service basis. He prepares and wraps all of the various cuts of meats in his stores. Many other retail stores are doing the same thing, but even so, most of the housewives still are patronizing their meat men

¹Mr. Sam Teitelman, Armour and Company, from a speech made by him on the subject of "Self-Service Meats," in July, 1953.

²Meat survey made by National Association of Retail Grocers in August, 1953.

³"Packaging and Displaying Meats in Self-Service Meat Markets," Marketing Research Report No. 44, issued by U. S. Department of Agriculture, June, 1953.



LEFT: Joe Gentile; Lee Gilleran, vice president; Philip C. Allen, vice president, and Phil McKendrick, all of P. Brennan Co., Chicago, with Mike Berkery, head hog buyer, Agar Packing & Provision Corp., Chicago.

RIGHT: H. B. Rogers, director of technical service; Jeff P. Pfaff, Leland S. Rolf, manager, midwest division; Joseph S. Hardy and J. E. Ryan, all of Huron Milling Co., New York.



behind the counter for steaks, roasts, chops and the other larger cuts of meat.

Among the most popular meats being sold through self-service stores are the small consumer size packages of meat products, especially those of sausage, cold cuts and luncheon meats.

This report will be restricted to developments in connection with pre-packaging of sausage and meat specialties, since the Institute's survey of the industry regarding package sizes of meats was restricted to these meat products.

MOST POPULAR SIZES OF CONSUMER PACKAGES OF MEATS: There has been considerable experimentation during this brief period of expansion in the development of pre-packaging of meats, both by meat packers and sausage manufacturers and by meat retailers, on the most popular and practical sizes of packages of sausage and meat specialties. New machines and packaging materials have been developed. Both fixed and catch weights have been tested, varying all the way from 4 ozs. to 1 and 2 lbs., depending on the kind of products and on the opinions of buyers and sellers. Consumer surveys have been run, too, in order to find out what size packages seem to be most desired by housewives. Problems of costs, volume, display, freshness, replacement of unsold goods, competition, are among the factors that have had to be contended with and solved. It has been a "trial and error" period in which the size of packages for these meat products has changed from time to time and it appears that there may be further changes in package sizes before certain sizes tend to become the custom of the trade based on consumer preference.

INSTITUTE SURVEYS INDUSTRY ON PACKAGE SIZES: In order to ascertain present trends concerning the more popular sizes of consumer packages of sausage and meat specialties, the Institute, upon the recommendation of its committee on sausage, has just completed a survey of its membership, concerning the size of packages now being used for each of the different sausage and meat specialty items. This survey was extended also to a representative group of retail meat distributors of various kinds and sizes located throughout the country. The Institute received very fine cooperation both from meat packers and sausage manufacturers and retailers on this survey.

The highlights of this industry survey, as reported by

both meat packers and meat retailers, are summarized as follows:

MOST POPULAR SIZES: A summary of the most popular sizes of consumer packages used for a group of sausage and meat specialties by meat packers and meat retailers in the summer of 1953 is shown in the table on page 207. The items are given in two different groupings. One group consists of items that are packed to *exact weights* and the other packed on a *catch-weight basis*.

In the case of the products that are packaged on an exact weight basis, the three most popular sizes as reported by both meat packers and meat retailers, in the order named, are, 16 ozs., 8 ozs., and 12 ozs. for *pork sausage* and *franks*, and 16 ozs., 12 ozs. and 8 ozs. for *smoked sausage* and *chili con carne*. A few report 10-oz. packages for *franks*, *smoked sausage* and *chili con carne*, and a limited number report 32 ozs. for *pork sausage* and *franks*.

In the case of *sliced luncheon meats*, the three most popular sizes reported by meat packers were 8 ozs., 6 ozs. and 16 ozs., but there has been quite a lot of switching in sizes in the last few weeks and, as a result, the 6-oz. package seems to be the best seller at the present time, with the 8-oz. running second and the 16-oz. package in No. 3 position.

Meat retailers report their most popular size for *sliced luncheon meat* to be the 8-oz. package with 6 ozs., 7 ozs., and 16 ozs. being tied for second place.

The survey shows that, for *braunschweiger* in casing units, the favorites among the packers are the 8-oz., 10-oz. and 12-oz. package, whereas the retailers report their favorites for this product to be 8 ozs., 10 ozs. and 4 ozs.

In the case of *sliced hard salami* and *thuringer*, both packers and retailers report the 6-oz. and 8-oz. tied for No. 1 position, followed by a few reports in each case for the 4-oz. package.

For *sliced cooked ham* packages, packers report the 6-oz. for the No. 1 position, the 8-oz. for No. 2, and 5-oz. and 7-oz. tied for the third position.

Retailers report their favorite sizes for this product as the 8-oz., the 16-oz., and the 6-oz. package.

For *catch-weight packages* the favorite for *braunschweiger-chunk wrap*, as reported by the packers, are the 12-oz., the 10-oz., and the 8-oz., whereas the retailers report their favorite to be the 12-oz., the 10-oz., and the 16-oz. package.

For the *bologna chunk wrap*, packers report the 12-oz. and the 16-oz., with a tie between the 8-oz. and the 14-oz. for No. 3 position, whereas the retailers report their favorite, for this time, as the 16-oz., and a tie between the 10-oz. and the 12-oz.

For *ring bologna*, the packers report their popular size



1. Philip Priess, The Glidden Co., soya division, Chicago.

2. W. H. Hane, Denman Rubber Manufacturing Co., Warren, Ohio.

3. M. R. Slater, general manager, Wass Food Products Co., Chicago.

4. Samuel Romm, general manager, Goldis & Cross, Inc., Philadelphia.

5. Adolph O. Baumann, Commodity Appraisal Service, Chicago.

6. W. C. Rapp, general manager, Canada Casting Co. of Illinois, Chicago.

as the 16-oz., the 12-oz., and the 14-oz. packages, whereas the retailers report their most popular sizes as the 12-oz. and a tie between the 14-oz. and 16-oz. packages.

COMMENTS FROM MEAT PACKERS REGARDING PACKAGE SIZES: The fact that different sizes of consumer packages for sausage and meat specialties have not become completely stabilized is indicated by comments received from individual packers in connection with this survey. The most recent change that has taken place is the switch from the 8-oz. package to the 6-oz. package, particularly for the sliced luncheon meats. The principal reasons given are consumer and trade demands and competition. Some typical comments are:

An *Eastern packer* "feels that the 6-oz. package for sliced meats is the best seller: Surveys indicate consumers prefer the smaller package, the unit price is lower and consumers will buy several units. Chunk, chubbs, and midgets should be 8 ozs. or up."

An *Rocky Mountain packer* says he "hopes that it will be possible for the custom of the trade to settle on a few practical and consumer acceptable packages rather than continue to fluctuate all over the lot."

An *Southwestern packer* says he is "abiding by a 'wait and see what happens' policy in the field of pre-packaging. Package sizes have fluctuated from 12 ozs. down to 7 ozs. and back again. Wonder if consumer will pay the high packaging cost if the economic situation should tighten up very much."

An *Midwest packer* states that "the retail selling price of an item has a direct bearing on the size for the package."

An *Ohio packer* says, "housewives buy by servings rather than by pounds. Six to eight franks meet her servings better than 10 to 12 franks and have some carried over or wasted."

An *Western packer* says, "space and fiscal restrictions have kept the company from going extensively into pre-packaging. Salesmen do not report any serious loss of

sausage business to competitive pre-packaged lines."

An *Illinois packer* says he "tried slicing and gave it up. Feels that today's packages do not stand the element of time nor the violence of the lady shopper—believes that any cured meat as ham and sausage cannot be successfully sliced and packaged without discoloring."

An *Southeastern packer* says he has "maintained the sale of franks by selling bulk quantities despite the fact that all competition offers product in 16-oz. packages."

An *national packer* says "sliced luncheon meat reduced from 8 ozs. to 6 ozs. because of competition reducing the size of their packages," and another says he "switched to the 6-oz. sliced package at one unit as an experiment and the trend appears to be to this size in preference to the 8-oz. package."

COMMENTS FROM MEAT RETAILERS REGARDING PACKAGE SIZES: Several retailers from different parts of the country report that the "8-oz. package is the most popular size for sliced cold meat," but several of them report an increased tendency toward the 6-oz. size.

A well-known *Midwest chain* reports "most popular size in sliced items is the 7-oz. package."

An *national retail organization* reports "many of our supplies are leaning towards a 6- or 7-oz. package of sliced sausage meat, except for bologna. Test results of these sizes indicate good customer acceptance. Also that many customers will purchase a greater variety of smaller size packages. Best results on *chunk items*, such as bologna, braunschweiger, etc., appear to be larger units of from 12 ozs. to 20 ozs. *catch-weights*."

Another *national chain* reports that "size of packages has become largely a matter of expediency. Generally, the size of the packages are 16 ozs. for such items as frankfurters and smoked pork sausage, 8 ozs. for sliced luncheon meats, and 8 to 12 ozs. for chunk and stick items."

A prominent *national meat retailer* says "through long years of development in the pre-packaging of all food products it has ultimately been the responsibility of each segment of the industry to evolve standards in weights and sizes of packages, containers and cans so that the consumer's interests are protected. In view of the fact that meat has always been sold on a basis of cost per pound, it would be our recommendation that the industry confine itself to size packages that would make it possible for the consumer quickly to discern the price per pound of any meat package."

SOME RETAILERS' PROBLEMS IN PRE-PACKAGING MEATS: In addition to asking the retailers to complete the questionnaire on specific package sizes, their comments were requested on the principal problems and advantages encountered by them in the handling of pre-packaged items. The following are some of those problems listed:

1. *Insufficient shelf-life* of the product remaining after the time necessary for distribution to a larger number of stores. One of the large national chains was overcoming this by maintaining a rigid policy of receiving only freshly packaged products.

2. *High packaging costs* reported by some. However, a representative of a large midwestern chain stated that when neater packages and advertising are considered, it is well worth the amount.

3. *Fading of color* of sliced luncheon meat items which

was said to be caused by fluorescent lights. Efforts are being made to find effective methods to overcome this problem.

4. *Multiplicity of brands* on highly perishable items has resulted in a serious problem in maintaining fresh stocks, according to retailers.

5. *Transportation problems* of packer wrapped meats.

ADVANTAGES REPORTED IN PRE-PACKAGING MEATS: Some of the advantages listed by the retailers for the use of pre-packaged meats are as follows:

1. *Stimulation of sales through impulse buying*, which will result from greater accessibility of the pre-packaged item to the consumer and from very attractive packaging which adds eye and sales appeal.

2. *Increased efficiency in the use of facilities and personnel.* Labor which was previously spent preparing packages can be devoted to the rest of the meat operations. A Midwest chain executive states that, "retailers are at a disadvantage trying to get maximum volume when they have to process and package meat in the stores and, in most cases, the cost of pre-packaging at the retailer level is much higher than the cost at the packer plant level.

3. *Sliced product is available during peak shopping periods.* A representative of a Midwest chain replied that, "retailers operating self-service markets will confirm that it is a hard job to get cut and pre-packaged merchandise in sufficient quantities to keep display cases filled."

4. *Greater freshness and longer shelf-life*—A Midwest city chain indicates that, "daily delivery assures complete stocks plus freshness."

5. *Display cases* afford housewives the opportunity of seeing what they are getting. In addition, some chains indicated that distributors assist in policing the cases.

FUTURE TRENDS IN PRE-PACKAGING MEATS: The retailers also were asked for their views regarding possible future trends in pre-packaging of meat products. There was almost unanimous opinion by these men that pre-packaged meats will become even more popular. However, according to a national chain store executive, "there must be a substantial improvement in pre-packaging materials, design, and methods to increase shelf-life, eye appeal, freshness, and to reduce costs." Most of the retailers indicate that more and more sausage and meat specialty items will be pre-packaged at the packer level as an assembly line is essential for low cost production. Many packers concur in this point of view. An industrial city chain store executive writes that "the packer will be able to pre-package items at a much lower cost than can be done by the average retailer."

A representative of a southwestern chain replied in his trend statement, that "there are unlimited possibilities for pre-packaged specialties, particularly from the packer's angle. As soon as the packer offers the retailer the pre-packaged item at a reasonable price, the volume of business on meat specialties should be considerably increased."

In summarizing this subject, the following observations may be of interest.

1. The upward trend in the expansion of self-service meat retail stores is expected to continue.

2. The pre-packaging of meats, especially sausage and meat specialties, such as cold cuts and luncheon meats, is expected to become increasingly more popular with consumers.



FRONT ROW: Hershel Noble, service engineer; Vic Langner, Chicago branch manager; George McSweeney, and Paul Borders. REAR: Bill Krone, George L. Jorgenson, Charles E. Sive, Jr., and Bob Thompson, all of the Cincinnati Butchers' Supply Co., Cincinnati.

3. Many meat packers and sausage manufacturers, as well as suppliers of packaging equipment, have been experimenting considerably with this new development in order to overcome the many problems involved in preparing, packaging, merchandising and distributing these products. They have had to contend also with the cost of producing these products, particularly until the volume can be built up to an efficient level, and also with the maintenance of quality and freshness.

4. Some meat retailers, who have installed self-service units, seem to prefer to prepare and wrap their meat cuts, especially the larger and more expensive cuts, while many others prefer to obtain their pre-packaged meats, particularly sausage and meat specialties, from meat packers in order to avoid the problems of preparing these products for display in their stores.

5. The most popular sizes of consumer packages of sausage and meat specialties, in order of preference, as reported by meat packers and sausage manufacturers, and by meat retailers, are as follows:

Product	Most Popular Package Sizes Reported By:	
	Meat Packer Ounces	Meat Retailer Ounces
Pork sausage	16, 8, 12	16, 8, 12
Franks	16, 8, 12	16, 8, 12
Smoked sausage	16, 12, 8	16, 12, 8
Chili con carne	16, 12, 8	16, 12, 8
Sliced luncheon meat	6, 8, 16	8, 6, 7, 16
Braunschweiger—casing units ..	8, 10, 12	8, 4, 10
Sliced hard salami and thuringer ..	6, 8, 4	6, 8, 4
Sliced cooked ham	6, 8, 5, 7	8, 16, 6
Braunschweiger—chunk wrap ..	12, 10, 8	12, 10, 16
Bologna	12, 16, 8, 14	16, 10, 12
Ring bologna	16, 12, 14	12, 14, 16

6. Some of the principal problems reported in the pre-packaging of meats are: the achieving of productive efficiency to be competitive; development of satisfactory packages, considering cost, eye appeal and display; overcoming loss of color; retention of freshness, and development of effective merchandising of the products.

7. Some of the principal advantages reported in the pre-packaging of meats are: stimulation of sales through greater accessibility and attractive display and eye appeal; more efficient use of facilities and personnel in preparing the packages for self-service display; continuous availability during peak shopping periods; more effective control over the quality, condition and freshness of the product; increased opportunities for attracting and appealing to the preferences of the housewife.



W. SEILER



W. G. ANDREWS



H. C. FAUCETTE



C. BOWES



A. F. GOETZE

Panel on Pre-Packaging

W. G. ANDREWS: The Grand Union Co., in cooperation with a national packer, pioneered pre-packaged delicatessen items in the East five years ago.

The initial experiment was conducted in a group of 20 stores over a period of four weeks. Consumer acceptance was immediate and at the end of this trial period these 20 stores showed an increase of 34 per cent in delicatessen tonnage sold.

We then extended the service to about 80 per cent of our total markets, markets that could be serviced efficiently at least twice a week by direct store door delivery. This pre-packaged line covers a good variety, including all loaves, salami, boiled hams, frankfurters, bologna and liverwurst.

The product had been put up in 8-oz. cello packages, with attractive picture labels. However, in the case of frankfurters we used the regular 16-oz. package. We are still using the original attractive package but we have since changed to a 6-oz. size in preference to the 8-oz. package. This includes the 6-oz. packages of boiled ham for better retail unit pricing.

We feel that by using the 6-oz. packages it gives the consumer three varieties to the pound instead of two. Test stores on the 6-oz. packages of delicatessen items have shown a substantial tonnage increase.

Freshness control has been maintained to a very high degree through the efforts of our supplier and cooperation with our own people.

With the occasional exception of boiled ham, losses have been non-existent. All packages are date coded by the packer for freshness control and store life is up to seven days. Orders are taken by the packer's driver salesman directly from the meat manager of the store when delivering a previous order. Costs are established in the usual way, through the meat buying office.

When product is delivered at store level, it should be stored under refrigeration at once; it is not to be left in the back room. When packages are displayed in the case, the picture label side should be up. This is done to protect the product against light discoloration.

Direct delivery on delivered items has been an advantage to us because:

1. We have no inventory in the warehouse.
2. Direct store contact by the driver salesman has helped control freshness—better policing of the cases—product moves directly from plant to store.

3. Loss through warehouse breakage has been eliminated.

4. Cost of pre-packaged product is no higher than the product processed in our stores.

In bringing a pre-packaged sliced product to the public the advantages are:

1. Selling is less effort. We are now taking advantage of the packer's advertising.
2. The gross profit has been strengthened.
3. Repeat business is higher.
4. There is better control of quality and freshness.
5. A long profit product is always available during peak periods.
6. Inventory is better controlled.
7. It enables us to tie in with the packer on branded product promotions.
8. We have better variety at all times.
9. We are able to devote more time to our fresh meat operation with definite beneficial results, both in processing and display.

At the moment we are testing the vacuum packed 6-oz. packages, but have no complete data on movement. Our cost is higher than the regular wrap, but it would seem at this point that vacuum pack will have consumer acceptance at higher retail prices in certain markets.

We believe in the future of not only pre-packaged delicatessen items but in the future of many other pre-packaged products.

* * *

CLIFFORD BOWES: Many of the ideas we have here are ideas we picked up from retailers throughout the country during a meat department survey recently made within our organization. Many of them I don't agree with myself, but they are making money for the boys using them.

In this whole meat business, I don't think we can stop and spend much time with all the theories floating around because no matter whether they work in theory or not, in actual practice there will always be examples. But, let's not forget that some of the men who have been most successful in this business have not built their business on beautiful displays.

An illustration came to me a couple of minutes ago. One of the boys working in grocery merchandising was *MORE PRE-PACKAGING* on page 212



KREY



Chicago Distributors:
WORTHINGTON CORPORATION



(Ammonia
Refrigeration
Equipment)

West Coast Representative:
MEAT PACKERS EQUIPMENT COMPANY
1226 49th Ave., Oakland 1, Calif.

Canadian Representative:
McLEAN MACHINERY COMPANY LTD.
Winnipeg, Canada

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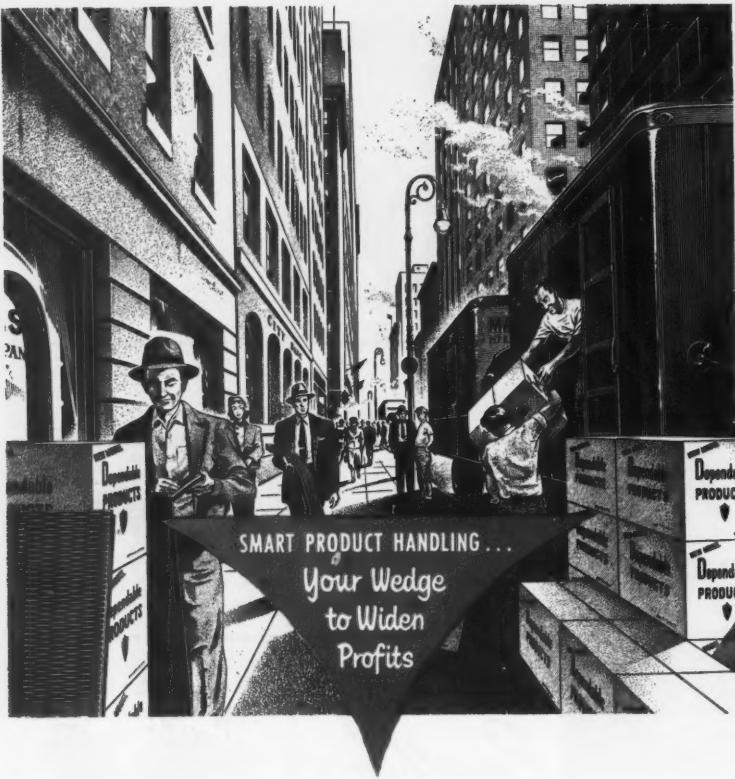
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Roamin' Around

1. J. A. Silberhorn, sales promotion manager; Marc Scheumann, vice president, and E. G. Anderson, division superintendent, all of E. Kahn's Sons Co., Cincinnati, and Carl Frank, Frank Sausage Co., Cincinnati.
2. Keith H. Redner, sales manager, and J. C. De Vol, Battle Creek Wrapping Machine Co., Battle Creek, Mich.
3. Floyd Segel, vice president, and Morris Segel, president, Wisconsin Packing Co.
4. John Devineceni, partner, San Francisco Sausage Co., San Francisco, and Charles J. Hoerner, partner, Sylvan Blondheim & Co., San Francisco.
5. Martin D. Levy, vice president, Berth. Levi & Co., Chicago, and Frank Batek, Casing department manager, Armour.
6. Henry Korah, president, Pasco Meat Products, Inc., Newark, and Joseph M. Dziminski, jr., vice president, Valentine Niezgoda, sales manager, and Joseph M. Dziminski, president, all of Pasco Meat Products, Buffalo.
7. Wilfred C. Cooper, president, Frederick B. Cooper, Inc., New York, and F. W. Gage, provision department, St. Louis Independent Packing Co., St. Louis.
8. Charles V. Franklyn, president, Mound Tool Co., St. Louis, and G. F. Frank, president, G. F. Frank & Sons, Inc., Cincinnati.
9. Harry Elliott, and Marvin Asmus, sr., both of Asmus Bros., Inc., Detroit.
10. Lee J. Krauss, engineer; Ray W. Barns, engineer; J. C. Mellon, engineer, and C. P. Upton, vice president and general manager, all of French Oil Mill Machinery Co., Piqua, Ohio.
11. H. H. Weber, president, and Kryn Hamelink, assistant to president, H. G. Weber & Co., Kiel, Wis.
12. Maurice Rottersman and Henry Rottersman, Advance Oven Co., St. Louis.
13. Louis Weiner, Griffith Laboratories, Inc., New York, and Sidney Diamond, John Minder & Son, Royalton, Pa.
14. Fred Wilcox, Mrs. Ray Townsend, vice president, Carrie Carlson, secretary to president, and John Adams, all of Townsend Engineering Co., Des Moines, Iowa.
15. John Bauer, vice president, and August Bauer, president, B. N. S. International Sales Corp., New York.
16. Bud Savallisch, Detroit, and Bruno Segner, Chicago, both of J. S. Hoffman Co.
17. Allen Snoddy, Richard Le Fevre, and C. E. Ditzler, Armour and Company.
18. Harry C. Long, and Ray Prickett, Basic Food Materials, Vermillion, Ohio.
19. H. E. Schaller, chief engineer, John E. Smith's Sons Co., Buffalo, and Chris E. Finkbeiner, president, Little Rock Pkg. Co.
20. George W. Krumhaar, *The National Provisioner*; Dr. W. J. Tebbens, research director, and C. B. Smith, vice president, both of Transparent Package Co., Chicago.
21. Lester I. Norton, president, *The National Provisioner*, and John E. Slaughter, vice president, The Girdler Company.
22. R. A. Davis, Milwaukee division manager, and Frank J. McNally, Chicago division manager, both of Oakite Products.
23. C. M. Fose, Harold Jaeke, general manager, Davenport; F. P. Gunkel, vice president, Madison, and R. L. Terry, industrial engineer, all Oscar Mayer.



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PRE-PACKING from page 208

in Oklahoma City a year ago. He went into a store, a super market, about 8:15 or 8:30 in the morning and the grocery manager was there himself. The rest of the staff had not come in, and he was putting up a special display of large cans of grapefruit juice and he was actually denting them with a hammer. Don asked, "What are you doing that for?"

He said, "Well, you know, Don, I built this business on cut-rate prices. People think I buy damaged merchandise and buy it at ridiculously low prices, and if I didn't dent these cans, they wouldn't move as fast as they will now."

It is a true story, but it illustrates the point.

Another illustration is, we say only quality builds business. But, here again, some of the most successful men in the meat business who have built the most profits have done it on meats of lower grades, and we have to face it. When it comes to quality there is only one point we see that is stronger than all the others, and that is that once you decide on the level of quality, stick to it, whether it is high or low. From my experience in the wholesale end of the business, I think if you lose a customer through price you always have a chance to get him back later, but, if you lose him through quality or inconsistency in quality, you might never get him back. By the time you are ready to serve him again on a competitive price basis, he may have found a satisfactory source of supply and it is a pretty hard job to get back in after you have been out. Especially is this true now in the sausage business, when we find so many retailers sticking to one packer when they decide to switch to self-service in the luncheon meats department.

One other point I think I might mention here is the fact that the consumer we are trying to sell often has a different concept of quality than those of us who run retail stores or who are in the packinghouse end of the business. At the packinghouse end of the business when we start talking quality, we talk about the ratio of fat to lean, water to protein and so on. But, the consumer has a different concept of the quality. If she doesn't like it, she just says, "It doesn't look right." It doesn't matter at all how well controlled your other points of quality are if it doesn't look right to the consumer. That is something we could spend a lot of time on because I think it is some-

thing we often overlook. I only brought this out to point out that we haven't started to go in and study some of the factors that affect sausage merchandising.

From what we see in our travels throughout the country we have a feeling that many of the packages, like some of the products, have developed more or less by chance. In many instances, the product itself, the kind of package and the size of package and so on, resulted from a decision made by one top man, just on the basis of personal preference. In a few instances, the decision was made by a group of production and sales personnel on the basis of what they thought would sell rather than the basis of what consumers wanted.

We find in our travels that there are sometimes four and five different factors that affect the kind of package that sells best, and our experience has been that the weight of the package is not always most important. Experiences in this may differ. The experiences of you in the sausage packing business may differ from mine and from the experience of some of the other panel members because the ideas I have here have been gathered from retailers all over the country. We have different patterns of operating on the West Coast than on the East Coast and different patterns in the Southeast than here in the Midwest.

As an illustration, look at the beef business. We still have some sections of the country where cutting methods are still so standardized they have been handed down from father to son for 150 years. We still have sections of the country where retailers insist on cutting one weight and grade of beef the year around, and in many instances it is the weight and grade of beef that was raised originally even when it is not the best buy on the current market. Those of you who have gone into the New England area know the heavy beef that is handled generally there. Yet, you go 100 miles away into the dairy district, perhaps to Maine, and you find a large share of the retailers handling cow beef. To a retailer who has never cut anything but cow beef, it is tops. You try and tell him there is better beef on the market and he will laugh at you.

I think the same thing happens in the sausage merchandising field. Each man has his own set of problems, and in many cases he is interested in justifying his present patterns of operating rather than looking for new ones.

So, with that, let's look at something we find in fresh meats that might apply to luncheon meats. We find in many sections of the country that price range per package is more important than weight in the package. We find areas where the package of sirloin steak selling best may be one ranging from \$1.25 to \$1.55, regardless of the weight, because that is the amount the homemaker may have budgeted for meat expenditures that day. Packages below that range may not sell as well because the homemaker from past experience thinks there is not enough to feed her family in it. Packages above that may not sell as well, because they are a little more than the homemaker planned on spending.

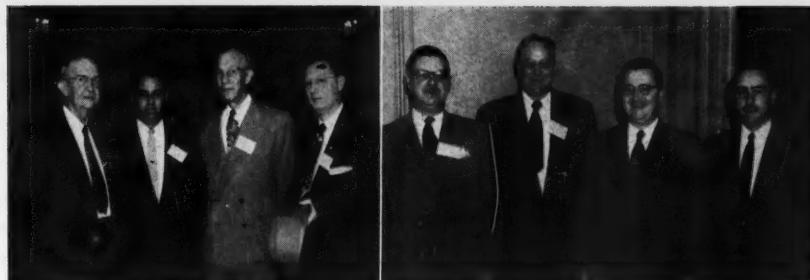
We also find differences from one section of the country to the other in the kind of sausage and sausage products that women want. This is due in large part to the concentration of the different income groups and racial groups within a city. Those of you selling sausage department products in the Chicago market will recognize the differences in the make-up of your distribution, the make-up of your sales volume on the South Side as opposed to



FRONT ROW: C. Greenfield, New York; R. M. Levaco, assistant sales manager, Chicago; Cy Fels, vice president, Chicago. Back Row: Ed N. Saad, Chicago; J. Messing, Chicago, and Herman Goldberg, Chicago, all of Oppenheimer Casing Co.

LEFT: Cecil Powell, assistant director, Tanners Hide Bureau, Chicago; W. G. Lancaster, assistant general manager, Chicago Plant of Armour and Company; J. E. Nelson, manager, Central Feed Supply, Chicago, and Giles J. Williams, general manager, Great Lakes By-Products Co., Chicago.

RIGHT: A. H. Cameron, Frank Fraher, J. L. Laine, sales manager, and G. U. Reid, all of Visking, Ltd., Lindsay, Ont.



the North side, and the West side as opposed to the suburbs.

In fresh sausage we find texture of the sausage and the color important, and we can't say fat to lean but the consumer's concept of fat to lean is important. If the consumer thinks the sausage is too fat, she won't buy it because she thinks it will shrink too readily even though the problem may not be in the fat content of the sausage but in the fact she is cooking it at a high temperature.

We find texture and degree of color are very often more important than the question as to whether the packages are uniform in weight or catch-weight. We find that very often the numerical count in a package of fresh sausage is more important than the weight. We find the consumer counting the sausage with a view to the number of servings in the package just as she will stand at the case and mentally measure off slices in a piece of sirloin steak.

In some areas that is far more important than the weight of the package. Now, here again, this is only one of my own ideas and it may not agree with what you fellows think or the other panel members think. But, I have a feeling that some of the packers who are putting out standard weight packages, 6 oz., 8 oz., 10 and 12 oz. only, are sometimes missing the boat. Let's look at a problem you have in my own family. I very often go shopping with my wife when I am in town because that is the only way I get a chance to visit stores in the area. We have discontinued buying our favorite brand of franks because that man always packs the same number of franks to a package and it is an amount that our family cannot use economically. If we buy two packages we have too much, and if we buy one, we don't have quite enough. Therefore, we switched recently to buying an unbranded frank that is put up in the store on a catch-weight basis so that we can buy exactly the number we need.

I sometimes ask myself, how many families have we in the Chicago area, where we have approximately 4,000,000 people, who have the same problem when they are buying franks? That also applies to other luncheon meats.

We find that the retailers who are putting up catch-weights are usually using a banded frank, and they are not using a backing board all the time. They can put up one layer or two layers in a package, and with this band on the sausage retailers give the packer his brand identification and eliminate the backing board.

Now, I am not recommending that. I am only passing it along as something that is being used successfully by retailers in different sections of the country. I don't recall the specific packer, but in the East last spring, I saw a packer who was putting these out in various-sized packages. He was not labeling them as to weight or price. He

was putting them out in three, four, five, six and seven catch-weights and letting the retailer price them in the store. This brought him in line pricewise with his competition and he was really setting the pace.

Another gentleman doesn't use a backing board of any kind when making them up. He just packages four banded franks together; it might have possibilities for some of us.

We spoke about different packages and about operating in different sections of the country. In Chicago and some other sections of the country, the retailer usually will shingle his products. I might mention one of the most serious problems here is with discoloration because with the spot you leave for the price at the bottom, the homemaker has to tear the display apart. We find most of the retailers who want to shingle their luncheon meats, if they package their own, like to have this section of the label designed for price at the top. Then the homemaker can look down and find a package in her price range so she is more inclined to pull the package out than to disturb the whole display.

Another instance of what one packer is doing to help the retailers in the area is the use of a slightly larger label. It over-hangs the package by $\frac{1}{2}$ in. and the information is at the top so the retailer can shingle his packages as usual and these tabs stick up. The homemakers in that particular city look for a package in their individual price range and pull the individual package out without disturbing the display.

We find that patterns of purchasing also vary in communities where most meats are packed in luncheon boxes rather than used on the table, just as we find patterns of packaging vary from summer to winter.

As an illustration, I worked in one store a few years ago where many of the people packed lunch boxes because it was in an industrial town. The standard package in that area, the standard order at the service counter,



Harry Lewis, Jake Lissner, Karl Axelson, L. R. McQueen, R. M. Byrnes, and C. Deverick, all of The Globe Co., Chicago.



ON HAND TO TELL packers the work that Livestock Conservation, Inc., is doing to cut down on animal losses was Mike O'Connell, assistant manager of the association.

was for three slices of luncheon meat because the women wanted to give their husbands three meat sandwiches in their lunch box. If packers are currently putting out 6 and 8-oz. packages, I wonder if they are getting their share of the business because, as you know, most women want to serve a different meat in the lunch box every day. If they have to buy a package of six or eight slices, they may have to serve the same meat twice.

Another point to realize is that packers have to sell the retailer just as much as the consumer, and sometimes there is an educational job to do with the retailer. Those of you who have had selling experience with your packer organizations know we have sections in the country where individual retailers refuse to handle lamb because they say people do not like it. Your salesman gets the idea that he can't sell lamb in the territory because lamb doesn't sell in this area. You go along with that idea until you send your relief salesman in when the first man goes on his vacation. If he has been in an area where he is accustomed to selling lamb, he will go up and do a pretty good job simply because he doesn't know it can't be done. I think we have the same thing in our sausage problems; we have retailers who refuse to handle certain kinds of salami because they say consumers don't like it.

This is only a personal opinion, but I have half an idea the main reason we are putting out uniform weight packages at the packinghouse level is very often because of our experience with sliced bacon in that manner. And I think consumer patterns of buying are different on bacon than they are on luncheon meat.

If I went back into the packinghouse end of the business, I think I would seriously consider putting out some catch-weights as well as some uniform weights. I realize there are a lot of problems involved.

We might find that the kind and size of package would vary from summer to winter. I am quite sure it would vary from one section of the city to the other in a large city because of the variations in the income groups and racial groups. It would make it very difficult to standardize packaging methods, but it is something I would consider if I were going back into that end of the business.

Another point is that in our travels we find some packers using the same philosophy they used in building up the canned meat business. Some of the boys who have been successful in canned meats have been trying to give the consumer a price that wouldn't fluctuate too much

from one time of the year to another. That is a point we might consider. Any of you who have been successful in the canned meat business on that basis, might consider that sausage products could be sold the same way. These packers, we find, are more inclined to vary the thickness of the slice than the price of the package as wholesale prices vary.

Here are several trends in the merchandising of sausage department products as we see them in the national picture.

We think that packaging at wholesale will continue to grow for the simple reason that a retailer can't afford to package a luncheon meat in a store. Slicing meats at a service counter is a pretty expensive and time-consuming operation.

Secondly, we find practically all markets that have converted to self-service find their sausage department increasing. I think the real reason is that the well-defined package is doing a selling job that the man behind the counter didn't do.

Another point you packers will be interested in is that some of the retailers who, we found, built the largest volume on self-service packaged products are also the retailers who promote packer brands and products and buy those rather than prepare their own. When a retailer starts to buy his packaged meats instead of preparing his own, there is a tendency to reduce the number of brands he handles. That is a good point. If nothing else, it helps some of you packers with the small order problem.

When the retailer reduces the number of brands he has, he is very often able to carry a wider selection within his brands. This gives you packers an opportunity to promote some of the higher-margin products that you are trying to get your salesmen to sell, but the retailer turns down because he doesn't have enough room. When the retailer reduces the number of brands, we find him getting into more of your salamis and high-type meats. We find retailers for the first time doing a real job on package advertising because, with the self-service advertising in your plan, you get your brand name before the consumer.

Finally, I will tell you briefly our concept of self-service in our national office. This is a round-about way of explaining, but I think it is important to consider facts that we are going to try to develop in the long-range sales program. Usually when we talk merchandising in any phase of the business, we talk about meat cutting and display items. That is fine, but let's go back a little further and you find that merchandising never became a field of endeavor in the business until we ran into a lot of economic problems caused by factors we couldn't control.

Fifty years ago, you could set up in either the wholesale or retail meat business as soon as you knew something about cutting meat or processing meat. In the last 50 years there has developed what we might call, for want of a better name, an economic environment in which a firm has to operate. You can no longer say that a firm is headed by the man who knows most about cutting meat at the retail level or making sausage at the wholesale level. Instead, success comes to the man who knows how to set up a management program that levels overnight to any change that comes about in the economic environment.

For example, what would happen if the price level should suddenly drop as it did 20 years ago? At the



George A. Hess, chairman of the board, Oswald & Hess Co., Pittsburgh, and Curt E. Dippel, president, C. E. Dippel & Co., New York City.

Norman Froehlich, assistant manager, Froehlich Sausage Co., Detroit, and Mrs. Froehlich.

Nicanor Gutierrez, president, and Alberto Pernas, secretary, Cia Empacadora N. Gutierrez, S. A., Havana, Cuba.

HARRY C. FAUCETTE, Colonial Stores, Inc.: There have been many changes in the retail meat business during the past 20 years. Some of us remember when we had markets doing less than \$500 in meat sales in a week. Many stores did not have markets, and we sometimes considered the situation "a necessary evil" among the stores which did have meat departments. We tolerated them all right, but we still didn't like the idea. They contributed very little to the company's results and only in rare instances did they draw customers to the stores. In those days, nearly everyone operated with high gross profit and low sales volume and not too many satisfied customers.

Yes, a vast change has taken place in the past 20 years. Along with the supermarket itself, the meat department has increased tremendously, both in size and in stature. Retail managements discovered that meat departments were no longer a "necessary evil," but a necessary *asset*. If they were properly managed, they would, indeed, attract people to the stores and be a lasting traffic-builder. To be sure, times have changed! The best equipment obtainable has been installed. The quality of meats handled has been greatly improved. Pre-cutting has been introduced to provide fast service and attractive prepackaging is counted on for a sales punch in point-of-sale displays. While we have been working to improve the quality of meats handled, we have lowered prices and margins so that markets are now operated on the sound principle of mass distribution: large volume at a small percentage of gross profit.

Men managing markets today are high-type, intelligent people who understand and practice the art of business management. For several years now, we have been carrying on extensive training programs to increase the efficiency of market men and to improve their service to Mrs. Housewife. Customers come to the stores now to buy meats because they know they can depend on them. Meat departments today are traffic and profit builders and not a sore spot in the business.

We operate 346 supermarkets in the southeast, of which about 35 per cent have 100 per cent self-service meat departments. Others have self-service cases for prepackaged sausage and meat specialty items. Until recently, we packaged every item offered for sale at the market level. Now, we are buying these from packers—already prepackaged in sizes ranging from 6 to 16 oz. per package.

We have found that, in our area, the 6-oz. packages of specialty meat items are the most popular, while 8-oz. to 12-oz. sizes are popular in some items, such as spiced luncheon meat. In bologna, popular size packages run up to 16 oz., or even larger in certain locations.

The principal advantage we retailers see in prepackaged meats is that they afford the housewife a wider variety from which to choose, thus increasing sales on profitable merchandise. As we all know, the retailer must sell more and more profitable items to maintain his desired gross. I am of the opinion this is *the* classification that will help him to maintain his gross profit position.

The main problems in handling prepackaged specialty items are color and freshness. They must be maintained to catch the customer's eye. Also, the package must contain no end slices—nothing but the finest quality that can be produced.

Proper rotation at the market is also a "must" to assure Mrs. Housewife that she can buy items that are always

retail level it would not matter how good a meat cutter the man is unless he has his program set up in advance. At the wholesale level, it wouldn't matter how well you control your water-protein ratios, fat to lean, how well trained your sales force is, unless top management has the kind of management plan set up to adapt to a falling price program overnight.

There are many things we have had to learn in the last 15 or 20 years. One is the tax picture. Twice we have had experience with price control. At the retail level our most important problem in the last 25 years has been the fact that operating costs have been rising. And the most difficult part of that problem is the fact that the costs climbing fastest are the ones we can't reduce when volume drops. This is why it is not necessary for prices to drop to lose money in the meat business.

The retailer can lose money when his volume drops. Then, every pound of meat he sells has too large a share of the burden to carry. He is in the same position as you are. It doesn't matter how good your selling prices are; if your kill drops off that can really cause trouble because every hog killed has too large a burden of expense.

Because of the expense picture we have had at retail—it has been climbing so fast—the only way a retailer can operate efficiently is to build volume. This quest for volume has been so serious that competition is no longer in terms of sirloin steak or boiled ham; competition is for traffic. But, traffic is no good to a merchant who can't handle it. Many stores have had to double their volume in the last ten years to keep unit operating costs in line. They switch to self-service as a method for building that volume, to reduce their operating cost per pound of product handled. So, I think you can see in a round-about way, self-service is a round-about development to beat the high cost of living.

It grows fastest where women like it and where retailers understand it. But, basically, it is an economic problem and I think it is one of the factors we should consider in developing our long-range merchandising programs.

* * *



C. R. Musser and R. G. Haynie, both vice presidents of Wilson & Co., Johnstown, Pa.



Edward Hahn and R. H. Hahn, owners, Edward Hahn Packing Co., Johnstown, Pa.



Herbert Slatery, jr., vice president, East Tennessee Packing Co., Knoxville, and Charles Thomas, foreman training, American Meat Institute.

fresh. No customer likes to buy something and take it home and find out it is in "off" condition and not fit to use. To win lasting customer loyalty, packers and retailers together have the joint responsibility to see that quality prepackaged meats are properly packaged and rotated throughout each step of distribution.

What can we do when standards of quality control, ordering or rotation are allowed to slip? When this condition arises, we salvage the off-market items for whatever they are worth and do not offer them for sale through the display cases. In nearly every instance, off-market products should go to the renderer. This is no less than our public-service responsibility. And it's good business, too! Just a few dissatisfied customers can wreck a thriving meat business.

Concurrently with progress at the retail level have been equally important improvements introduced by the livestock industry in breeding better meat animals and by the meat packing industry in the development of better products. Meat packers have standardized their grades and have improved their services. Meat is delivered to our markets faster and more often, fresher and in better condition than it was several years ago. Dependable sources of supply, whether the meats are prepackaged or in carcass form, are fundamental if we retailers are to keep in step with rapidly increasing demands from customers for better food at lower cost.

I hope that we can make just as many improvements in our meat business during the next 20 years as we have in the past. While I am only a practical meat man and not a theorist who can look in the crystal ball and tell what is ahead, it is interesting, nevertheless, to at least peer ahead and try to bring the future into focus. Right now, an important trend toward prepackaged meats is taking place. This is a logical development because it serves the housewife better and, no doubt, will be carried further. It is the kind of service that customers are willing to pay for, provided we maintain rigid high standards of quality, freshness and packaging.

I look for a large growth in prepacking volume by packers in the next ten years. During that time, packers will continually be working in their laboratories trying and testing new products and new methods of distribution

in the interest of a better and growing meat business.

The trends of the past several years will continue. The meat department will continue to grow both as a source of profit and as a traffic builder. Meat departments will be manned with increasingly better personnel, meats handled will be of more consistently high quality, and the entire meat operation will be made more efficient.

This progress will be accomplished through better management practices, installation of better equipment, and in more intelligent selection and training of personnel—on the parts of packers and retailers alike.

* * *

WILLIAM C. PURDY, Jewel Food Stores: I believe we are all here to help each other in the merchandising of products to the one party that keeps us all in business—Mrs. Housewife.

Many in this room are really not retailers in the strict interpretation of the word, yet, we are all governed by the retail sale to the consumer. If we are to be successful, we must recognize the importance of catering to the whims and fancies of the housewife.

These fancies may be controlled to a degree, but they still must be catered to. We are only successful when we sell merchandise. Without sales nothing any of us can do will amount to a "tinker's dam."

"What is selling?" One of the best definitions of "selling" I have heard defines it as: "*To cause acceptance of.*" Let me repeat that "selling" means "*to cause acceptance of.*"

Everything we retailers do is beamed at causing acceptance of our products by the housewife. We may never again have an opportunity, such as we have today, to sell meat products to consumers.

How big this opportunity is depends on us—all of us—to cause acceptance of our products by that *very important party* who keeps us all in business—"Mrs. Housewife."—So much for that!

Now I would like to explain the part sausage plays in Jewel Food Stores. Prior to our venturing into self-service meats, we at Jewel were primarily interested in merchandising red meats—"Beef, Lamb, Veal, Pork, Poultry," and we were able to build a very substantial meat volume in our service type markets. The sausage and delicatessen line was not given much thought.

However, since September, 1948, at which time we opened our first self-service market, we have become sausage minded, and our sausage volume now amounts to over 17 per cent of our meat tonnage. *There is still lots of room for improvement.*

Our No. 1 approach to the pre-packaged sausage and delicatessen line has been, and still is, centered around the importance of *freshness*.

Freshness when "Mrs. Housewife" uses the last few wieners or the last few slices of cold cuts. In short, *freshness on the table. Nothing will do more—to cause acceptance of—than "freshness on the table."*

Here is what we have done about freshness:

All of our pre-packaged sausage items are delivered to our warehouse five times each week—Monday, Tuesday, Wednesday, Thursday, and Friday. This merchandise is delivered on refrigerated trucks to our warehouse between 2 to 4 o'clock in the afternoon.

This product is kept under refrigeration overnight and delivered to our markets by our refrigerated trucks



Phillip Van Allsburg,
public relations, Swift &
Company, Chicago.

R. W. Ransom, John
Morrell & Co., Ottum-
wa, La.

Redman Davis, National
Live Stock & Meat
Board, Chicago.

Harry Miller, New York,
of J. S. Hoffman Co.

George E. Brissey, meat
curing and canning re-
search division, Swift &
Company, Chicago.

Joe McIntyre, Julian En-
gineering, Chicago.

being given to producing packages that can be kept on display a long time before having to be destroyed, and not enough thought to packaging sausage that will be a good value to "Mrs. Housewife." We are not nearly as interested in how long something will keep in our markets, as we are in how well something will sell in our markets.

To sum it up—**TO CAUSE ACCEPTANCE OF**—we must have pre-packaged sausage, properly priced, that will put "**FRESHNESS ON THE TABLE**." Thank you for your attention.

ALBERT F. GOETZE: Pre-pack of all types of food has increased in recent years due to the increased popularity of self-service, and meat has been no exception, although many more problems are encountered in pre-pack meats than with other food items such as dairy, bakery and vegetable. One of the most important of these problems, insofar as costs are concerned, is the matter of weight control.

To determine the most popular size package for sausage and meat specialties there are several very important factors to be considered. First, let's consider the packer's cost. We all know the hundredweight cost increases every time the unit weight of a package is decreased so it might appear to be an advantage to attempt to get all packers to standardize on a definite size package for a definite product.

But I'm afraid that is more or less wishful thinking because we are all striving for a competitive advantage and standards wouldn't last very long if we found an off-size package selling better than ours. A striking example is the cigarette industry which was forced to recognize the demand for king size. We have done the same thing in reverse; we started with king size and have gone down to midgets.

In a self-service store, and I am inclined to think that more and more meat departments will be self-service in the future, the package itself is the only salesman on duty.

Here it is important that the package be attractive . . . the contents be eye appealing and the package be the right size.

Now, who can say what is the right size.

However, we do discover which is the popular size in checking consumer purchases in a retail self-service market, and due to rapidly changing markets of today packers should review their marketing policies more frequently today than in the past.

DuPont has recently published an interesting survey which shows that the average size of the American family has been on the decline for the past 20 years. It shows, according to the latest available data, there are 3.33 persons in the average American family.

But even more significant is the fact that over 60 per cent (approximately 26,000,000) of the nation's families have created a demand for smaller packages, and therefore it is increasingly important for today's packer to package the right amount of product in the most convenient and attractive form.

I do not know whether the territories served by us, both rural and metropolitan, compare with the nation's average, but we assume they do. Our experience based on consumer preference clearly shows that "variety is the

the next morning. Every package is code dated showing the last day it is to be sold.

If it is not sold by the expiration date it is taken off sale and destroyed. Our managers and district managers are held responsible for this function.

We assume that the cost of this policy to insure "*freshness on the table*" is part of the expense necessary in operating a self-service market. It is as necessary as the cost of rent, refrigeration, gas, electric, and telephone expense.

Our No. 2 objective is proper packaging:

We, like most retailers, have space limitations in our markets, and are not interested in seeing how many duplicate brands of an item we can carry. We handle, with a few exceptions, one brand of most sausage items and work very closely with this supplier. We worked together, right from the start of our self-service markets, and arrived at packages that the "*consumer wanted to buy*"—not what we wanted to sell.

We are still working together trying to improve the packaging problem. It all adds up to the fact that "Mrs. Housewife" wants an attractive package, packed so that the unit price is within what she wants to spend. She is not the least bit interested in paying a premium for sausage just because it is pre-packaged.

We also are of the opinion that the reputations of our suppliers of pre-packaged sausage items are affected considerably by "Mrs. Consumer's" reaction to their products.

Prior to self-service, poor quality, improperly priced, old sausage reflected on the retailer's ability to be a worth-while merchant. Today, with self-service, we both share this responsibility.

To sell—it must be a good value:

To put it frankly—there is entirely too much thought



William C. Schmidt, executive vice president, Cincinnati Butchers' Supply Co., Cincinnati, and Marley Evans, president, Evans Industries, Marion, Ind.

Bob Stutz, representative, Griffith Laboratories, Inc., Newark, and Howard Firor, vice president, Merkel, Inc., Jamaica, N. Y.

Arthur Chermak, secretary, Chermak Sausage Co., Manitowoc, Wis., and Mrs. A. Chermak.

spice that livens the manufacturer's future."

Our company entered the packaging field at an early date and we have had some success in merchandising both 16-oz. and 8-oz. package frankfurters, 16-oz. package pork sausage meat, 8-oz. package breakfast links, 4-oz. package chipped beef, 6-oz. package sliced sandwich meats, 16-oz. and 8-oz. package sliced bacon, 10-oz. midget braunschweiger, 12-oz. bolognas and 1-lb. and 2-lb. package scrapple. It is my opinion there is no popular standard size package that would apply to all products. I do believe, however, the packer can do a better job of pre-packaging many of the products than the retailer. The retailer can increase his meat volume by handling a variety of smaller size packaged meat items. The retailer who displays quality pre-packaged meats sells: (1) Convenience, (2) Less waste, (3) Economy, (4) Variety, (5) Availability, (6) Freshness, (7) Easy storage and (8) Flexibility to Mrs. Housewife and keeps her coming back for more.

One important thing in this pre-packaging, as I think was brought out by the gentlemen who talked before me, is a quality control of your products. It is very important to keep the temperature around 35 degrees. Code marking should date the products from the beginning packing and delivery. You have to have store level control by supervision to protect your brand name because your name is on every package.

Here is some more information from the last issue of the DuPont magazine to show how the American household is getting smaller. Between April, 1947, and 1952, the average number of persons per household shrank to 3.55 and then to 3.33. At the time of the 1940 census, there were 3.67 persons per household.

Here is an experience by Stokeley on a frozen food item. The industry started volume operations with the 12-oz. package, then gave way to a 10-oz. size in many products. This trend parallels a movement in major canned foods in recent years. The small retail size is a "must" in view of the shrinking family unit. The average housewife is

more concerned with the total cost per package of frozen food than she is with a computed saving per ounce in larger sizes, and that is true in our meat business.

I think, gentlemen, that if we want to have an increase in the meat packing business, we will certainly have to go into pre-packaging, but we must do it on a quality control basis and it has to be done in the right way.

BERTRAM C. TACKEFF: I would like to confine my remarks this morning exclusively to the problems of slicing and packaging of the various types of luncheon meats that our industry today makes. I believe that we may assume certain things at the very outset.

To begin with, there has evolved an entirely new philosophy of food merchandising with the evolution of the self-service supermarket. With that has grown an ever-increasing demand for more and more of the packers' product put up in convenient self-service consumer units. In conjunction with this, there exists today a tremendous field of opportunity for the farsighted and aggressive meat packer.

Secondly, I believe we can agree that the methods and procedures employed today in the field of luncheon meat packing are at best transitory. I have particular reference here to the in-store manner of slicing and wrapping of consumer units of cold cuts which probably most of our self-service markets today employ.

Eventually, the manufacturing, slicing, wrapping and packaging of various types of luncheon meats must end up at a centralized point. I believe that our industry can and must assume this responsibility.

How best can the meat packer meet this need and what are some of the pitfalls? The objective is how best the packer can turn out a sound, wholesome, high quality package of cold cuts in an efficient low cost manner. A package which has consumer appeal merchandising-wise. A package which will meet the high standards set by the chain store industry today.

Every industry in the field of food products has had similar problems in the field of packaging and merchandising. However, our industry in the area of luncheon meats has a very distinct and difficult problem. That is, the perishability of the merchandise. It is a very important aspect and deserves our prime consideration.

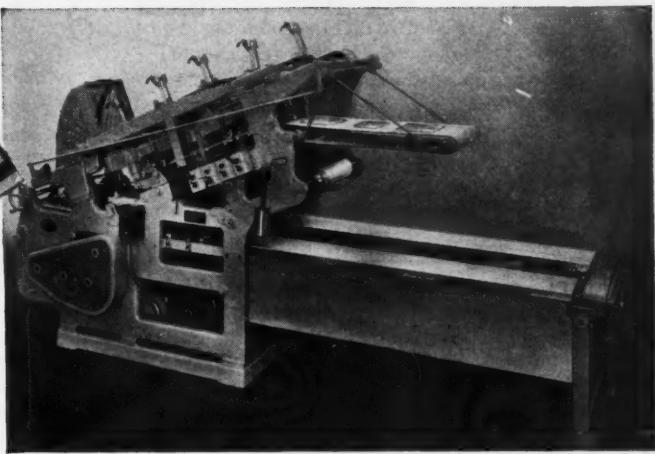
Let me say with a maximum of emphasis that it is our responsibility to insure the ultimate consumer that she can buy for her family the very best we know how to make in a completely sound and wholesome condition. Any other approach is disastrous. If you don't start with this premise, don't attempt to enter the field at all.

What has evolved up to date in the packing industry in this area? Already many packers have begun operations in the packaging of luncheon meat. Primarily three methods have been employed to date.

First, some of the packers have begun simple operations by slicing and hand wrapping their merchandise. While this has been a beginning, I think we must agree that this, at best, can only be a temporary procedure. While a satisfactory package may be made, it does not meet the test of low cost and efficiency.

Second, certain packers already have begun to use specialized wrapping machines and they are presently turning out packages of merchandise wrapped in one of the many available packaging films. In this area, the adoption of

Give YOUR Bacon this Superior Wrap! It's "DRUM-TIGHT"



We felt quite sure that we had a winner when we perfected the FB Bacon Wrapping Machine. And the enthusiastic reception given this machine throughout the meat packing field proves we were right.

The Model FB gives you a bacon package that is virtually drum tight. Flavor is sealed in — bacon stays in excellent condition longer — and the package looks more attractive on display.

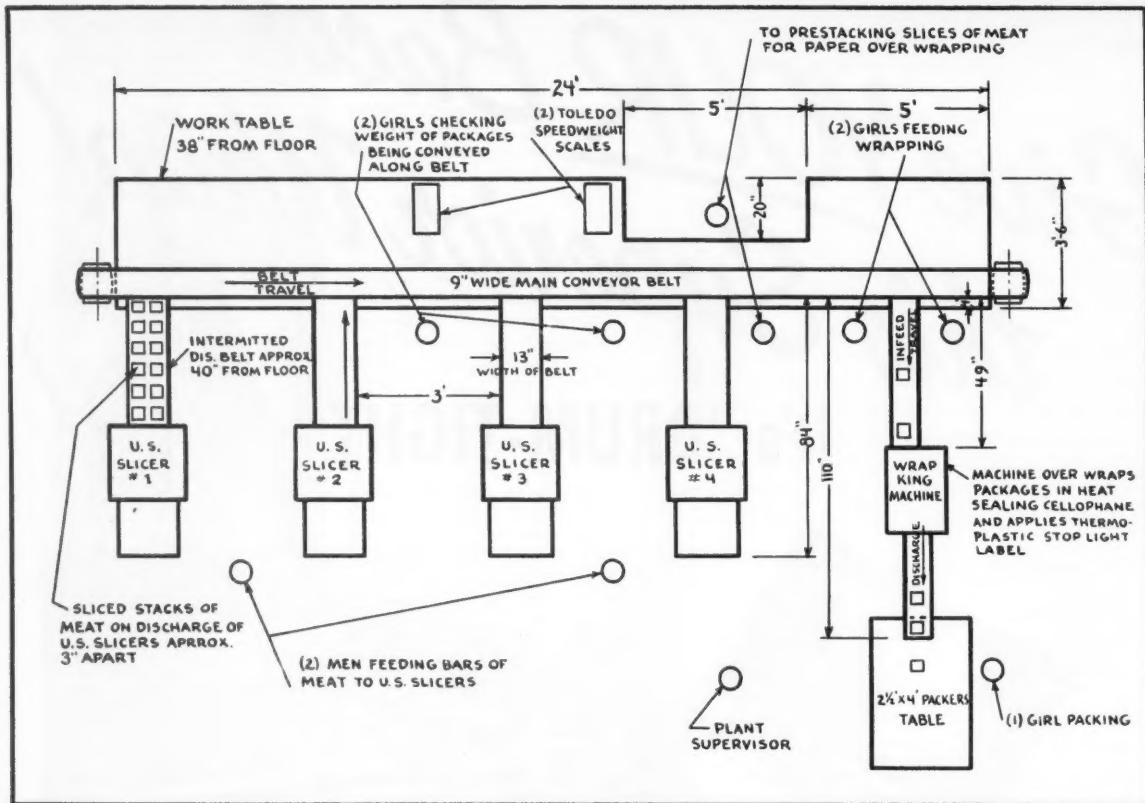
Only one operator is needed to feed and remove bacon at the normal operating speeds of from 20 to 40 packages a minute. The FB uses special cellophane or any other wrapping material recommended for bacon. It is quickly adjustable for a wide range of package sizes.

Write for complete information

**PACKAGE
MACHINERY COMPANY**

SPRINGFIELD, MASSACHUSETTS

NEW YORK PHILADELPHIA BOSTON CLEVELAND CHICAGO ATLANTA
DALLAS DENVER LOS ANGELES SAN FRANCISCO SEATTLE TORONTO MEXICO, D.F.



Here is layout of packaging operation at Teckeff's plant, New England Provision Co., Inc.

machine operations has but recently begun. However, we can report here that already there are available wrapping machines that do an excellent job in making good looking packages at very low costs.

Wrapping machines are today in use which wrap and label by the conventional overwrap method up to 80 packages a minute with the employment of two or three girls. This would compare with a production of four to six packages per minute as now accomplished by hand operations at the retail level.

Beyond this, many packers throughout the country have not only entered the field of prepackaged cold cuts, but they have given the prime concern to the problem of perishability. In endeavoring to increase the so called shelf-life of their product, new techniques are being employed.

Packaging methods are now adequately developed and in use which have adopted the principles of vacuumizing. As we know, certain types of bacteria grow in the presence of oxygen and therefore, an attempt has been made to take most of the air out of the package. In this method, a bag or pouch is employed, made of one or a combination of transparent films and after the product is put in the bag, it is vacuumized and sealed.

Further experimentation is now being conducted, not only in vacuumizing but also in breaking back into the packages other gases besides oxygen, namely, nitrogen. Unfortunately, this entire procedure of vacuumizing is not a panacea for the problem of perishability. While development of certain types of bacteria is retarded by

this process, other types grow as well or better than in the conventional package.

Any packer undertaking use of any particular type of package must thoroughly familiarize himself with the storage life of his merchandise together with its limitations.

Where does the packer who does not presently package his cold cuts start?

1). Don't start unless you have the proper production facilities, namely, sanitation control and refrigeration. These facilities are a must if you are to turn out a sound, wholesome product.

2). Make the best product you know how. There isn't a supermarket chain in the country today that isn't primarily concerned with quality.

3). Remember the merchandise is your responsibility from the moment you sell it until the youngster in the eighth grade eats his bologna sandwich during noonday lunch.

4). Slicing machines are readily available which will do an excellent job for you today.

5). Avail yourself of the lowest cost procedure you can, in line with the method of production and distribution that you will undertake.

6). Make a good-looking product. You will have to compete in the self-service case with other brands. You want Mrs. Housewife to buy your product.

7). Commit yourself to the speediest distribution procedure you can. By and large you are selling fresh meat and not sterile canned goods. Time is of the essence and

CELLOPHANE OVERWRAPPING COST ANALYSIS

Special Materials and Equipment Needed

1. For Square Loaves: loaf molds 4 x 4 x 24 in. stainless steel.
2. For Round Items: Fibrous non-stretch casings, approximately 30 in. long.
3. Slicing Machines: U. S. 170 G's.
4. Wrapping Machines: Wrap-King.
5. Backing Boards: 24 caliper.
6. Cellophane: heat sealing type.
7. Labels: heat sealing, pictorial.

Production Figures

Utilizing four U. S. slicers #170 G and one Wrap-King wrapping machine.

	8-OZ. PACKAGES	6-OZ. PACKAGES
Production one U. S. slicer	100 slices per min.	100 slices per min.
Production four U. S. slicers	400 slices per min.	400 slices per min.
Packages per minute	50 packages	66 packages
20 per cent allowance for loading	10 packages	13 packages
Net prod. per minute	40 packages	53 packages

The Wrap-King wrapping machine, at maximum load, can wrap 80 packages per minute. Assuming an operating speed of 75 per cent and a loss of 10 per cent on the changing of labels for different items, the above sliced production can be readily wrapped.

8-oz. packages: 40 per minute or 96,000 per week of 40 hours.

6-oz. packages: 53 per minute—127,200 per week of 40 hours.

The above set-up can slice, label, and wrap approximately 48,000 lbs. of product weekly.

Cost Analysis

Wrapping material (cellophane) . . . packages per M	\$3.00
Labels (pictorial three colors) . . . packages per M	4.50
Backing boards packages per M	2.25

MATERIAL COST packages per M	\$9.75
MATERIAL COST per package	1c

LABOR COST

One supervisor	
Two men filling slicing machines.	
Two girls check weighing.	
Two girls filling wrapping machines.	
One girl dating and inserting labels in machine.	
Two girls boxing packages as they come off machine	
10 people @ \$1.50 per hour	\$15.00
Production per hour	2400 packages
Labor cost per hour	\$15.00
Labor cost per package	%c

TOTAL PRODUCTION COST PER PACKAGE	1½c
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the faster and more frequent your deliveries the more successful you will be.

8). The merchandise is still your product even after it leaves your plant. Make it your responsibility to the very end.

Ideally speaking, the best combination of circumstances occurs when a packer can undertake to supply a local market with this type of merchandise—a market which

he can serve in a matter of hours after it leaves his plant. No matter what type of package he makes, any packer can best serve his own immediate market. Store door deliveries naturally are to be preferred to warehouse distribution where possible.

If your situation is such, you can readily turn to the conventional method of over-wrapping with any of the transparent films. In this instance, cost-wise you should be able to slice, wrap and label a consumer package for no more than 2c a package. That is relatively inexpensive. Ideally, this is the best set of circumstances.

If you undertake to sell a distant market, do not undertake it with the conventional over-wrap package. The merchandise will not hold up three or four days in transit, together with the unknown number of days in the display case and in Mrs. Consumer's ice box.

You will of necessity have to resort to other packaging methods. In this instance, we thoroughly recommend that you rigidly follow the soundness of your product from plant to consumer.

In conclusion, let me say the challenge is great. There exists a large gap between the packer and the retailer. It is up to our industry to fill in this gap.

The time has come when our industry must devote its effort completely to harmonizing our products with recent trends in retail food merchandising. Institute reprints of a cost analysis of my company's procedure in this area will be passed out after this session. (See left-hand column.) We hope our experience may be of some value to some of the packers here who are particularly concerned with pre-packaging luncheon meats. I must, of course, advise you that only one method of packaging is now available. Furthermore, I must advise you that the analysis primarily concerns itself with production and material costs to the exclusion of many other important costs, namely shrinkage, loss by ferment, returns, equipment amortization, etc. These aspects are very important, but unfortunately they are very difficult to average. I believe they can be ascertained only by each individual and, therefore, have omitted them from our consideration.

* * * *

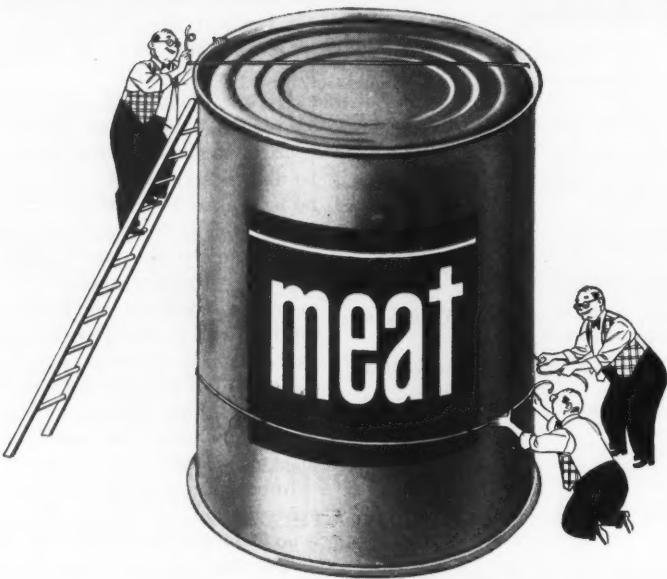
F. C. DANLEY, *Armour and Company*: We believe the packer must face the pre-packaged sliced luncheon meat problem realistically.

The principal outlets for pre-packaged cold cuts are chains, super markets, and large individual dealers, and their operators are pretty smart people. One important reason they buy pre-packaged cold cuts is because they can buy them at least as cheap as they can produce them; actually they are buying labor, not a commodity.

Most dealers packaging fresh meats have an efficient labor setup. Since they are self service, their people are wrapping all kinds of product and have been doing it for some time. They are experienced and have enough work to keep a packaging gang busy all day, every day.

The packer must recognize that his pre-packaged line of luncheon-meats must be economical, or he will have considerable difficulty in selling the dealer. This is important. Only through volume can he install equipment better than the type used in a meat market for reducing packaging costs; a slicer and hand wrapping won't get the full job done.

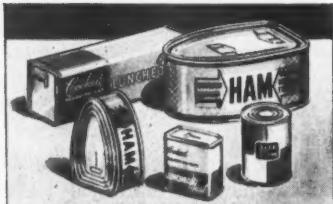
Sliced luncheon meats present new problems to the



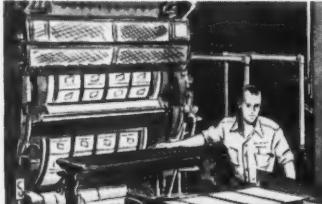
Let us measure you three ways for hand-tailored meat can service

When you call on Continental for cans for meat products, we treat you as if you were our only customer. We hand-tailor our deliveries, lithography and engineering to your

particular needs. We do our level best to do things your way. If you'd like this kind of service, it's yours for the asking. Why not get in touch with Continental today.



VARIETY. Continental makes meat cans in all standard sizes and shapes, but we are always ready to discuss special designs. If you have a package problem, let us help you solve it.



LITHOGRAPHY. Our artists are masters at giving your design sales-appeal. Our platemakers and pressmen work with the most modern equipment to give you sharp, clear reproduction.



ENGINEERING. As a Continental customer, you have available the services of experienced scientists and engineers to help solve processing and packaging problems quickly and economically.

CONTINENTAL CAN COMPANY

CONTINENTAL CAN BUILDING
100 EAST 42ND STREET • NEW YORK 17, N. Y.



Eastern Div.: 100 E. 42nd St., New York 17 • Central Div.: 135 So. La Salle St., Chicago 3 • Pacific Div.: Russ Building, San Francisco 4



packer which must be met with new or exacting methods. Too many people think that the only thing needed for going into the slicing business is a slicer, some packaging material, and a few labels.

They also might think that little space or expense is required, and that the sliced items can be handled with as much abandon as we sometimes see given to bulk sausage items. However, sliced luncheon meats are delicate and lose their bloom, color, and flavor quickly unless unusual care is given them. They cannot be frozen and must pass to the consumer quickly, with almost no break, and very little deviation, in the chain of refrigeration. If distribution and other delays will not permit quick handling, new methods must be employed to give the package more stability.

Mechanization of handling, either of a relatively stable or unstable package, requires that the natural sales area must have a large potential or it cannot support the costs of mechanization. Product in the unstable packages should be delivered to the store the day after it is sliced and the store must have at least twice-weekly service.

Production of good quality packaged cold cuts requires rigid quality control of the items to be sliced. The freshest available raw materials must go into their formulation and they must be handled under ideal temperatures with specially designed equipment.

Properly packaged, the product should be sliced in rooms with near perfection of humidity, temperature and bacterial control. Labor cost control demands the latest and finest machinery available for slicing, stacking, weighing, wrapping, and cartoning. All of these processes take considerable room, and cost a lot of money.

Certain advantages accrue to the dealer when he handles the right kind of pre-packaged cold cuts.

1. He obtains relief from a tedious packaging problem which normally has the tendency to raise his overall packaging costs to a higher level. This relief allows more time for supervision of packaging those items which must be done in the store.
2. His delicatessen volume and profits usually are increased. This is brought about through several factors, most important of which are these:
 - a) He no longer finds it necessary to neglect his delicatessen department at certain times of the week when the press of business creates an unbalanced urgency for packaging the heavier items. So, his volume increases for the very ordinary reason that the display can be complete at all times.
 - b) Acceptance for his cold cuts is improved because they carry the packers' labeling and are known to be the packers' top brands. This acceptance can also be greater because it is possible for the packer to produce a better package than can be done at the retail level.
 - c) His profits can be improved since he no longer will need to inventory packaging supplies and labels. Smaller packaging space requirements and reduced investments in equipment will also contribute to this profit improvement.

Mrs. Consumer benefits from all this because of the better sanitation which can be engineered into a packer pre-packaged line of luncheon meats.

However, all the benefits which can accrue to dealer

and consumer are in danger of being dissipated because of an unsound merchandising practice the packer is seemingly creating for himself. I refer to the growing tendency for packers, in their anxiety to press for an advantage, to place their sliced cold cuts line in retail stores on a "guaranteed sale basis."

What possible responsibility can the retailer feel for proper rotation of product if he knows that on every third or fifth day unsalable product, or product carrying a certain expiration date, will be replaced?

We should be focusing our attention on methods for supplying the consumer with meats at the least possible cost. Yet, the evil I have just mentioned can snowball into an ever-increasing problem if it is not checked now.

I give you this challenge because I know it is serious.

To proceed, we firmly believe that better packages as produced by the packer, can and will do a better merchandising job for the retailer. Our sincerity in this belief is well founded; and it is unfortunate that time allotted here will not allow us to pursue the subject fully, to give it the emphasis it deserves.

I repeat: Better packages, properly displayed, will create a sizable increase of business for the dealer. This is an undeniable fact, but it might also blind us to something even more basic.

In fact, the problem existed even before the packer sliced his first loaf of luncheon meat and very little has been done to correct the situation.

The problem is simply this: What are we, as an industry, going to do about raising the public appreciation of luncheon meats above their present standard? Too often a luncheon meat sandwich—it matters not whether the request is for boiled ham or bologna—isn't on a par with a cheese sandwich or a hamburger. It is merely two slices of bread, with something very thin and difficult to identify, in between. This applies both at home and in a restaurant.

Now, there must be a reason for this attitude; and the industry has not taken enough interest in changing it. This is unfortunate because unfavorable attitudes can be changed. Look what we did for "belly meat!"

Order a bacon sandwich and it comes embellished with lettuce, tomatoes, and mayonnaise, delightfully garnished with other appetite-whetting foods. It might even be served toasted with cheese and tomato, or in countless other ways; but never plain!

As another example, see how the dairy industry has dramatized cheese as a popular sandwich food.

The shocking situation today is that users of these wholesome and palatable luncheon meats don't give them the preparation and appetite appeal they deserve. What has caused this attitude?

1. Was the quality not as good as your customer expected?
2. Was the variety insufficient to tempt the customer?
3. Have we, as an industry, poorly presented what can be done with luncheon meats?

The luncheon meat business is growing with pre-packaging. It will continue to grow only if our quality, variety, and packaging are good.

To be of real service to the dealer and ourselves, the industry must do something constructive about popularizing luncheon meats.

Let's do something about it, gentlemen. We are the meat industry!



ACCOUNTING

"Employe Retirement Plans" by Robert N. Peck, Tobin Packing Co. — "Labor Expense Controls" by B. E. Steele of Armour and Company — "The Daily Cost Test vs. the Monthly Statement and Budget Control for the Small Packer" by J. L. Mitchell, Ohio Provision Co.

Fit Pension Plan to Your Needs



R. N. PECK

MANY PEOPLE IN THIS ROOM have undoubtedly had much experience in the formulation and operation of the retirement plans of their companies.

Such problems quite often land in the controllers' or treasurers' departments. We are concerned with this not only from the standpoint of management, but from the accounting

and cost aspects as well. Much change has occurred in pension thinking in recent years and now most companies have some form of pension plans but such plans must be evaluated and revised from time to time.

While I may not be able to add much in the way of originality in regard to pensions, I hope to stimulate constructive thinking in the direction of some of our mutual problems. What I have to say has to do with the conclusions reached as the result of my personal experience with the operation of our plan during the past five years. The pension problem with us became apparent about six years ago. Older companies have faced the problem in earlier years and younger ones are now becoming concerned with it.

There are many kinds and varieties of employee welfare plans today and it is a major undertaking even to list them. To name only a few, there are group life insurance, group health and accident, hospital and medical insurance, incentive bonus plans, employees' stock purchase plans, employee training programs, incentive profit sharing plans, deferred profit sharing plans and retirement plans. In the separate field of pension plans, there are many varieties and combinations. They can be classified generally as informal and formal.

The formal plans can be either funded or unfunded and, in turn, the funded plans may be either trusted or insured as part of the requirements to meet Treasury approval under Section 165a. The principal classifications of insured plans are (1) deposit administration (2) group annuity contracts (3) individual annuity contracts. In addi-

tion to the variety of funding methods there are the following general types relating to benefits (1) conventional plans (2) union pattern type plans.

We spent a year studying the general problems and considered as many of the related aspects as possible. We were not under the pressure of union bargaining. Our objective was to establish a suitable plan for all of our employees.

Our basic premise was the assumption of responsibility to see that those employees who had spent, or would spend, many years of their lives with us should have assurances of a reasonable amount of income during the remainder of their lifetime after age 65. We wanted to provide the best retirement income possible at the lowest cost, in other words, we wanted to get the most for our money.

We did not consider that income to the pensioner's family was our major responsibility in view of the fact that we provide quite liberal life insurance benefits. We did, however, include optional family income in the final plan. It is not mandatory in any respect as is the case in the plan of one of the larger meat packing companies. Some of our other objectives were flexibility, freedom of administration and simplicity of operation. By flexibility I mean reasonable leeway in connection with making contributions to the plan in bad versus better years.

You know, we do have bad years in this industry and very seldom have what could be called good years. A deferred profit sharing plan has desirable flexibility but does have certain defects. By simplicity I refer to administration and accounting. Five or six years ago there were few published standards to be used as guide posts such as the percentage of pension to final pay and cost as percentage of payroll, etc.

We feel that we were fortunate in selecting a plan that has met our requirements and which gives promise of standing the tests of time. We were also fortunate in our selection of an actuary whose common sense approach helped us in reaching our objectives. We decided in favor of the non-contributory feature and we do not regret that decision. Age 65 was selected as the normal retirement age. It is not compulsory and permits the employees in good health to continue from year to year with consent of the company.

When we started the pension plan we thought it would be too drastic to require employees of age 65 or more to

retire immediately on announcement of the plan without some period within which to acclimate their thinking. It has worked well so far and we hope it will continue to do so in the future. The average age of retirement for our pensioners to date has been 70 years due to high ages at inception of the plan and tight labor conditions. As time goes on the average will be lower.

No contributions are made to the fund for employees of age 65 or over but in our case the working of life expectancy and compound interest substantially increase the retirement income. At this point I might mention that our history shows that pensions to retired employees average 30 per cent of final pay rather than 24 per cent which would have been the case had they been required to retire at normal age of 65.

Our pensions plus social security benefits have averaged 58 per cent of final pay as opposed to a 50 per cent average that was our objective and a 52 per cent average that would have resulted from retirement at normal retirement date. These actual results have occurred with an average service to normal retirement date of 26 years. You will note that I have used final pay as a measure in quoting these percentages although the pension formula is not on that basis.

Also it should be mentioned that our benefits when combined with social security benefits produce higher percentages for those who earn less than \$3600 annually. Therefore, it may be said that the pensions are weighted in favor of the lower pay levels. With improved longevity in recent years, many companies are giving consideration to using age 66 or 67 as the normal retirement age. A 66 retirement age would permit higher benefits or would give a cost reduction of about 9 per cent. That is worth considering.

Another major decision that had to be made was as to the method of funding. Insurance companies make a strong case for the guarantees they can provide. They use low guaranteed interest rates and very conservative mortality tables that are intended to provide reserves which they feel are needed. We set up a trust fund naming a well known local trust company as trustee. We have a retirement committee composed of three other company officers, and myself as chairman. My early banking training caused me to favor the trustee plan.

Since interest on the fund is one of the most important factors, we wanted to get the greatest immediate benefit from that source of tax free income. Insurance companies usually use 2½ per cent guaranteed interest rates—our objective was at least 3½ per cent. That 1 per cent extra income compounded over the years works to reduce costs by about 20 per cent. We wanted a fund that would be adequate from the standpoint of security and with high enough income to produce a suitable yield.

Some banks prefer to recommend a portfolio similar to that of the insurance companies with a predominance of government bonds. I do not think it is conservative to lose income and thereby increase costs 20 per cent or more, so we have a working agreement with the trustee whereby the investment percentages are about as follows: government bonds 30 per cent; corporate bonds 30 per cent; preferred stocks 10 per cent, and common stocks 30 per cent.

Our experience with government bonds and corporate bonds has been unfavorable whereas our portfolio of

blue chip common stocks shows a good appreciation. We are, of course, principally concerned with good yield on sound investments rather than with short term market fluctuations. Our fund is yielding 3.78 per cent on cost with which we are well pleased.

Another controversial—but important factor—is the mortality table to be used. We use the Combined Annuity table which is frowned upon by life insurance companies for annuity purposes. Most insurance companies use the 1937 Standard Annuity table with 2½ per cent or 2½ per cent interest. We have experienced mortality gain each year and when it is considered that our income gain is so much over the interest assumption of 3 per cent we feel secure and believe we are getting the fullest benefit of common sense operation at a minimum cost.

Our actuary feels that if adverse mortality experience occurs in our plan we can make the necessary adjustments over an extended period. Such contingencies can be met without serious cost effects and without impairing the actuarial soundness of the plan.

Cost in this connection is a more or less nebulous thing. We know what our contributions are but we must rely on sound interest and mortality assumptions to cover the eventual cost. I don't expect to be here when our contributions have leveled off with annual pension payments so I probably never will know the true cost. However, we feel sure that our costs are not understated.

Having told you about some of the features of our plan, I will quickly fill in other points of interest. It has been in effect just over five years. No amendments to date have become necessary. All employees are covered but for simplicity of actuarial computation there is an eligibility waiting period of five years and there is a 25-year age requirement. Twenty years continuous service are required prior to age 65. Early retirement is permitted at age of 60 for employees having 20 or more years service with benefits reduced actuarially.

Disability benefits are paid on an actuarially reduced basis after 15 years continuous service. There is no vesting except for the early retirement characteristic. Pensions are in addition to social security benefits and such benefits are for life at an annual rate equal to 1 per cent of basic wage or salary for each year of continuous service. For past service the basic pay is as of the time the employee becomes a participant. The basic pay does not include overtime premium or bonuses and is limited to \$15,000 per annum.

The actuary's fees and trustee's fees are paid by the company and have not exceeded 1½ per cent of cost which is extremely low. Most insurance companies use an 8 per cent "load" factor. The past service liability is being funded over a 30 year period. Fund investment income has exceeded pension payments by 14 per cent to date. The fund is valued for actuarial purposes as follows—bonds at amortized cost and all stocks at cost or market whichever is lower.

In regard to accounting—that work is divided between the company, committee, and the trustee. The estimated cost is distributed to each of our plants monthly. The actual cost, as determined by the actuary, is adjusted for in the closing period of our fiscal year. This is possible because the pension year ends August 31 which gives two months within which to bring the employees'

records up to date and make the actuarial computations. Our payroll department runs off on IBM the basic pay data for the eligible employees once each year.

The committee maintains a card record for each eligible employee. This is a usual form of record showing age, date of employment, past service credit, and annual future service credit. The cards serve the purpose of a complete historical record showing date of retirement, amount of pension and date of death. The trustee makes all pension payments and maintains records of receipts, income, and pension disbursements of the fund.

Statement of receipts, disbursements and changes in the investment portfolio are furnished monthly. The trustee also furnishes periodically a complete review of the portfolio. The accounting work, insofar as the company is concerned, is completely automatic and I can think of no more simple and cost free type of operation.

There has been a recent trend toward the union pattern type plan in a number of industries, including the meat packing industry. The principal points of difference between the union pattern type plan and the conventional plans, such as ours, are as follows: (1) In the union type plan all union employees are included for the purposes of actuarial calculations and there is no waiting period. Our type of plan has the benefit of greater simplicity in that regard because the greatest turnover of employees occurs in the first five years of employment. (2) Contributions and benefits in the union type plan are not related to wage and salary levels and often include social security benefits. We consider that our type of plan is better since contributions and pensions automatically relate to employee earnings and benefits are in addition to social security benefits. (3) In the union type plan there are often moderate extra benefits for disability. This is a good feature if kept within cost limitations. Life insurance companies have found that the cost of disability pensions vary with economic conditions and in bad times the impact is most severe. Because of the unpredictable nature of such benefits and costs it is obvious that the extra benefits must be small. (4) The union type plan requires union representation on the committee. This results in two plans—one for union employees and one for all other employees. The advantages and disadvantages, of course, depend on the point of view.

Our actuary, David Stone, recently told me, "Your plan provides greater benefits at relatively lower cost to your company than is the case in any of the many union type plans with which I have had experience."

I have tried to demonstrate that from our experience a reasonably satisfactory pension plan is within the reach of most companies—but a word of caution is necessary. Our type of funding would not fit all companies. Great care must be used in selecting a bank trustee which has had suitable experience in this field so that it will be possible for the trustee and the committee to work together harmoniously in developing a sound portfolio and at the same time provide adequate income.

Smaller companies with relatively small trust funds might well consider using a trust committee, investing in suitable mutual funds. Such funds provide experienced investment management with diversified investments at a minimum of cost. The smaller companies are also well advised to give consideration to funding by the use of an insured type of plan.

We can all be sure that the problem of employee retirement plans is with us to stay and such plans must be tailored to meet each company's needs. In recent years there has been a great increase in employee benefit plans in all industries, as well as in the meat packing industry. Tax advantages gave impetus to the establishment of funded pension and profit sharing plans during the war, so now probably more of us have funded plans than do not. The wisdom of having them is obvious, for the cost would be there and it is good business to provide for them out of current earnings.

There is evidence that in the meat packing industry a great deal of pension thinking has been done. A survey conducted by the American Meat Institute in 1952 showed that plans in this industry date as far back as 1911. Many modifications have been made in the older ones and many new plans have been established. At the time of that survey it was known that 17 of the better known companies had plans covering hourly paid workers and six companies had plans covering salaried workers only.

Insofar as it could be determined, the plans were equally divided in respect of the contributory feature. In reviewing a few packing company plans recently, I found a wide variety of methods of funding. Some are insured, some are trustee, some are retirement annuity and some have deferred profit sharing characteristics. The trend is toward the union type of plan.

We know that the unions have given expert attention to many aspects of pensions and pension planning. As evidence of that statement, I refer you to the booklet put out by the American Federation of Labor entitled, "Pension Plans Under Collective Bargaining," a reference guide for trade unions.

In conclusion let me say that it behoves everyone of us, who have any responsibility for the pension plans of our respective companies, to become well versed in this very important subject.

Controls Needed on Labor Expense



B. E. STEELE

SINCE LABOR EXPENSE represents a larger and larger portion of the sales dollar each year, it becomes increasingly important that we have a well-organized program for controlling this expense.

Much has been said and written on the importance of labor expense. I will assume that you are aware of its importance and will present a program we have developed and feel will provide management with information to control labor expense.

There are three primary uses for labor expense information by management:

1. *Measure of Productivity:* We need labor expense put together in a form that will serve as a control on the productivity of various gangs or departments. This can be expressed in terms of proficiency and waste.

2. *Accounting for Departments Results:* We must properly allocate labor expense according to department



Nick Serhijiv, sausage foreman; Vernice Washington, kill and cut foreman; P. E. Burgess, sausage foreman; Chris Finkbeiner, president; Charles Brown, plant superintendent; Harry Stacy, company pilot, and Warren K. Bass, auditor, all of Little Rock Packing Co., Little Rock, Ark.

classifications for departmental result purposes.

3. *Product Costs:* We must know the labor cost to produce various kinds of products.

We have developed a procedure for determining and reporting proficiency and for allocating labor expense in order to report results by departments. In this procedure we have also provided for the basic information from which individual product labor costs can be computed.

Although we are using punched card accounting equipment to do this job, we believe that the same principles can be applied with other systems.

To use this procedure, standards must be provided for the work performed in each department that is to be controlled by this method. We are using standards established by time study engineers.

Another requirement is a rate list for each department which contains a complete description of each job and the rate to be paid.

The easiest way to explain this program, and to give you some idea of the potential of this kind of an approach, is to start by explaining what must be done to get this system set up.

Organizing Expense Groups and Classifications: The first step in organizing this material is to list all jobs and standards according to the sequence of the operations within a department. Each department must be analyzed individually to determine the classifications or grouping of expense desired. It is not necessary to have one standard for each job. All standards and jobs should be grouped so that there will be a common cutoff in operations of both jobs and standards. The jobs and standards should be matched according to major groups within a department and may be broken into smaller groups if desired. We find it desirable that standards be established to match each individual job because it is then possible to compute proficiency on each job.

Under any system requiring classification of information, coding is an absolute necessity; therefore, codes are to be assigned so that there will be a common factor for each major group, a common factor for each minor group, and an identification for each job and standard.

We use a seven-digit code. It contains three numeric, two alphabetic, and two numeric characters. This sounds like a lot of digits, but it is broken down into significant sections so that it is not unwieldy. The first three digits represent the department; the first letter represents the

major breakdown within a department, such as "Unloading and Receiving"; the second letter represents a finer breakdown of a major group; the last two digits identify individual jobs or individual standards within these groups.

All jobs in the approved job rate list are to be coded with the codes established so that the foreman may have this information before him.

All standards are to be coded.

When using tabulating equipment, one master card is set up for each standard. This master card contains:

1. The code assigned.
2. The standard, expressed in hours per thousand units of production.
3. Standard job rate per hour.
4. An indication as to the source of the production to be applied to this standard.

This completes the initial set up job for each department so that the information required may be furnished to the payroll department in a rather routine manner each week.

Weekly Distribution of Actual Expense: The basic information for computing the actual expense for all reports is recorded on each employee's timecard by the foreman. This is the same information required to compute each employee's earnings.

The foremen are given a copy of the approved rate list which has been coded. They are required to know only the codes for their department. The foreman is to report on the timecard the number of hours each employee works on each job each day. He is to describe the job by using the codes shown on his rate list.

When using tabulating equipment, a separate card is punched with the hours worked on each job of each employee. These cards are added together to compute the employee's earnings and are then sorted according to the job codes, since the job codes indicate expense classification. If the employee's time is recorded correctly for pay purposes, the expense will be classified correctly.

Weekly Computation of Standard Hours and Standard Costs: As previously stated, a master card is set up for each standard. The only additional information required each week to compute standard costs is the production volume to which the standard is to be applied.

Production reports are furnished from plant clerical or accounting records. The standard volume is multiplied by the standard expressed in hours to compute standard hours produced, and the standard hours produced multiplied by the standard job rate to compute standard costs.

Comparison of Actual and Standard Performance: Each week, a report is prepared for each department which shows:

1. Actual hours worked versus standard hours produced expressed in hours and proficiency by gangs, lines, or tables, and for the total department.
2. Hours worked and actual cost on jobs not covered by standard.
3. Cost of clothes-changing time, time-and-one-half, double time, guarantee, and holiday pay.
4. Cost of night premium pay.
5. Total direct labor expense.
6. Hours worked and actual cost versus budget on indirect labor.
7. Total department expense.

The information on this report is intended to serve

the purpose of everyone in the company who is concerned with labor expense.

Analyzing Weekly Reports: A report is prepared each week which shows the proficiency by gangs or lines which are our major groups; however, if the proficiency appears out of line, we can break this down into smaller groups within a gang or even by individual jobs if the standards are prepared in that manner.

Any difference between proficiency expressed in hours and the proficiency based on cost will represent:

1. Payment of rates higher than the standard job rate. This may be due to poor work assignments by the foreman or low volume which causes more combination jobs.
2. Incorrect rates applied by the foreman or the time-keeper.

If any of the detail of these figures that make up this report is required, with tabulating equipment we can mechanically list the job number, hours worked, rate paid, and cost for each job classification. We can also list the detail of the computation of each standard on the same report.

These reports will not in themselves control labor expenses; but, we feel that they will provide management with the information required to do the job by pinpointing the areas that need attention and corrective action.



LEFT: Mrs. and Frederick Weimer, vice president, and Mrs. Helen W. Schaaf, secretary, all of Weimer Packing Co. Wheeling W. Va.
RIGHT: Chet Wolf, Ray O'Brien, and Jack Hannon, all of Transparent Package Co., Chicago.

etc., and even other methods for gauging the cost of every other item of plant expenses. Consequently all packinghouse accountants are faced with the problem of maintaining records which will reflect actual operating costs, and still stay within the bounds of good common sense.

If some of the methods of allocation discussed seem rather crude and unorthodox, please bear in mind that each of them is the result of a compromise between scientific theory and practical packinghouse accounting.

Packinghouse accounting falls into two major groups:

- (1) Manufacturing
- (2) Servicing

In manufacturing accounts we have, in addition to the cost of meat, the following:

- (1) Direct labor, including:

Direct labor
Payroll taxes
Tools, uniforms, and laundry expenses
Life, accident, and health insurance
Social security taxes
Guaranteed hours
Vacation and holiday pay reserves
Supervision
Pensions
Compensation

- (2) Direct supplies and expenses

- (3) Indirect expenses

These accounts should be separated so that they are subdivided into the following functional accounts, which can be expanded or reduced to meet the requirements of a particular business. However, none of these functions can be combined without distorting the resulting cost per unit ultimately arrived at.

(1) Beef Slaughter	(6) Slicing Bacon
(2) Pork Kill and Cut	(7) Sausage Manufacture
(3) Curing	(8) Inedible
(4) Lard Refining	(9) Casings
(5) Smoking	(10) Hides and Pelts

In addition to manufacturing costs, we have the following service accounts:

- (1) Assembly
- (2) Selling
- (3) Delivery
- (4) General Administrative

These service expenses begin at the point manufacturing costs end, namely, at the point where management decides the opportunity lies for the greatest profit. The service costs cover the expense of placing the product

Daily Cost Test and Controls



J. L. MITCHELL

THE SECRET OF ACCURATE costing is in maintaining records which exhibit actual expenditures for labor, supplies, and expenses, properly sub-divided by departments, operations, and processes.

All packinghouse books of accounts have in them somewhere all of the information necessary for proper costing. The accountant's job is to segregate and classify this information to the point where the resulting statements will give management a true picture of the effects of all costs incurred during the period.

Merely to know your expenses is not sufficient; it is important that some instrument of measurement be used which will place your cost of performance upon a basis of units produced. This is in itself good, but still is not sufficient for modern packinghouse efficiency. It is necessary that a determination be made as to whether the result is better or worse than past performance, and also as to the degree of variance from the predetermined standards projected from a prior period.

To arrive at a theoretically correct cost of each separate product processed through each department in a packinghouse, translated into cost per cwt., is a scientific operation beyond the scope of most packinghouse accountants.

In the case of utilities and other items of plant overhead, such a program would involve the installation of meters to measure the use of power, gas, water, steam,

under the buyer's control and completing the transaction to the ultimate collection of the sale.

If all statements are prepared at the end of each accounting period listing expenses according to the purpose for which the expense was incurred, it is then possible to reconcile predetermined costs for the period with actual costs. Management can much better understand a basis for computing costs when the fundamental and underlying figures are clearly set out on a profit and loss statement.

A superintendent and a foreman will have much more respect for statistics when they know that they are actual operating facts reflected on operating statements. Of even greater importance is the fact that this method eliminates the possibility of error in failure to include any part of the expense in computing costs. This method assures that every penny of expenses is assigned to a specific product.

An accurate and practical direct labor cost is a very important item on tests and weekly reports. A practical approach is necessary in setting up the charge which will be acceptable both to management and to the operating department. This rate can then be used for costing tests and reports, and the sum total of this rate, when applied to the total production of a department, very easily becomes a budgeted labor expense.

This can then be used as a comparison with the actual labor cost for that particular department as reflected by operating statements at the end of the period. The difference between budgeted expense and actual expense is a major factor in determining the extent by which anticipated income differs from realized income.

Direct supplies present no problems. A formula can be developed that will include the correct cost of each item of direct supplies per unit. When this formula can be applied to the production of the respective product, and it equals the usage of the supplies for a given period, it will be correct to use on tests and reports. The sum total of all supplies shown on tests for each department then becomes the budgeted direct supplies for the period.

Indirect, or overhead expenses, on the other hand, provide a real test for the accountant's ability. It is extremely difficult properly to allocate these expenses, and at best the final allocation is arbitrary and completely a question of experience and judgment.

Overhead consists of two major classifications:

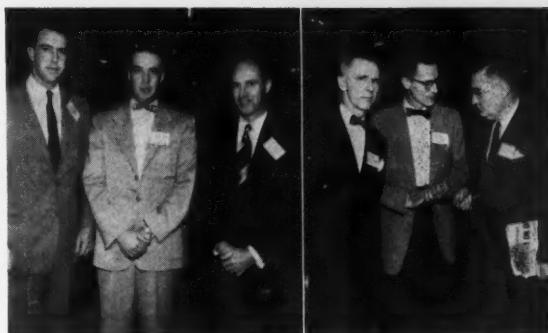
(1) Indirect Materials and Expense:

Power
Light
Water
Heat
Property Taxes
Property Insurance

(2) Indirect Labor:

- Watchmen
- Elevator operators
- Sanitation men
- Engineers, firemen, and maintenance men

Overhead expenses are those factory expenses which are a part of the cost of manufacture, but cannot be assigned to any one particular product or group of products, although the whole plant, and all of the products, will get more or less equal benefit. The borderline expenses deserve particular attention, so that the expenses charged to this account may be held to an absolute minimum. It is



LEFT: George Weed, St. Paul branch manager; Howard Symmes, Milwaukee branch manager, and T. H. Townsend, Indianapolis branch manager, all of Pure Carbonic, Inc.

RIGHT: Paul Lyons, industrial engineer; Ed Drobek, production manager, and F. J. Groeneveld, chairman of board, all of Miller & Hart, Inc., Chicago.

possible to get a fairly accurate and practical basis for the allocation of most general factory overhead expenses by a careful and complete survey based on the theory of use and occupancy.

This is particularly true in the case of heat, light, power, and other items of building expenses. Other items of this expense do not meet this test, and consequently must be apportioned upon some other basis. This makes an awkward situation when overhead becomes a part of predetermined costs requiring reconciliation with actual expenses incurred each period.

I have found in our own plant that all items comprising factory overhead can be equitably allocated by the use of the direct payroll method. That is to say, all overhead expenses can be pooled into one lump sum and this sum distributed to the producing departments in the same ratio as the respective departmental direct payroll is to the total direct payroll.

I concede that this method is not scientifically correct, but it is practical to apply, and is based on the generally accepted theory that a production department normally uses the services comprising indirect expense in the same proportion as it does direct labor. We find this to be reasonably true in our own case.

By grouping all indirect expenses as one item and making the distribution to the respective departments as a single item of expense, it is easy to compare predetermined expenses with the actual expenses incurred. When each department has been assigned a budgeted expense based upon units produced, and ledger accounts are carried reflecting the same expenses actually incurred as a result



Mrs. E. A. Sutherland with display of material published by Institute of Meat Packing, University of Chicago.



J. D. Cooney, recently elected president of Wilson & Co., Inc., Chicago, attended the AMI convention.

of the production, statements can be prepared at the close of each accounting period giving these results and comparisons to management and to such employes as are responsible for results obtained.

Departmental statements can be summarized into one master statement showing the following information:

- (1) Total direct payroll costs
- (2) Total direct payroll costs anticipated from the production obtained
- (3) Total direct supplies used
- (4) Total direct supplies necessary to obtain production
- (5) Total overhead expenses incurred
- (6) Total overhead expenses anticipated from the production obtained

Thus, at a glance, it is possible to see exactly how much expense was assigned to cost statements during the period as compared to the identical expenses incurred as a result of operations during that period. The difference will answer many hitherto unanswered questions about net profits in the industry.

Service departments can be grouped into four major classifications:

- (1) Assembly
- (2) Selling
- (3) Delivery
- (4) General Administrative

These classifications can be divided into two subdivisions:

- (1) Direct labor (including "fringes")
- (2) Direct supplies and expenses

These classifications are followed in most packing-houses, although the grouping of the expenses covering these functions may be more or less loosely followed. For best results, these expenses should be considered apart from manufacturing costs in order to avoid duplication in the application of burden on product transferred from one department to another.

These expenses are much easier to handle and control if they are applied to sales weights rather than to manufacturing weights. Here again, the simplest method of setting a predetermined rate of expense, of determining a proper budget, and of showing final results for comparison at the end of the period, will prove the most satisfactory. Credit each department with only that part of sales weights that actually use the service.

Compute the delivery cost by dividing the total of delivery expenses by the total number of pounds actually delivered. This department does not handle "will calls," consequently this tonnage does not affect the cost of the department.

Compute the cost of assembling orders by dividing the

cost of the assembly department by the weight of orders actually packed. The shipments of bulk meat do not affect the cost of operating this department.

Use this same theory on the other two departments.

Statements can be prepared at the end of each accounting period, comparing the total cost of operating each department in this classification with the budget as represented by the amount used on cost figures during the period. The combined figures for all service departments can then be summarized in one master exhibit in the same manner as that discussed for the plant's production departments.

Production records of each department in detail are an important part of plant control. If the cost department is effectively to account for the cost of sales, it is important that it be furnished with accurate and complete records of the daily production of each item processed.

If these records are furnished the cost department, it is a simple operation to price the product and translate the pounds of production into dollars of sales. Consequently, I favor a daily test on the production of every department.

The problem of shrinkage is a major headache to cost departments throughout the industry. Shrinkage in the coolers, on the floor during further processing, breakage and additional shrinkage in the assembly department, spoilage, and so forth, all contribute to the ultimate cost to be recovered before any realization of profits is possible.

Daily tests can be summarized at the end of periods, and, by adjusting for inventory fluctuations, be reconciled with actual weights and amounts of sales. This is possible with all items carried on tests in their final stage and is of great benefit to management, and to sales and operating departments.

It is relatively easy to carry tests to a final conclusion. When prices have been determined which will establish the test margin, carry these values to the ultimate sale itself. In other words, the price at which you value your product on the day you slaughter or cut, for example, should be the transfer price charged to the curing department, the sausage department, the lard department, the inedible department, or whichever department the product moves through.

When costs are computed on a basis of the theory of a major product and of by-products, such as is the case of a beef department, it is very important to know that the by-product credit is neither too high nor too low, for the error in this calculation will greatly influence the operation of the beef sales cooler. In the case of joint product costing such as is practiced in pork operations it is equally important, because over-valuing any one of the many items might influence the slaughter of additional hogs when they were cutting an actual loss, or discourage the slaughter of additional hogs while they were in a profit position.

The use of this method will disclose with surprising accuracy the ultimate profit or loss on processing, and whether management took full advantage of the best profit when that opportunity presented itself.

In conclusion, when tests and reports are summarized into master tests for an accounting period, and all expenses are taken into consideration, the resulting figure should closely approximate the net result on the operating statement.

Raise and Buy Meat as Public Wants It



*H. H. Corey, AMI Chairman
is Constructive Critic*

THERE ARE SO MANY THINGS that this great packing industry can do by working together through our industry organization that it is of questionable value indeed to take up any of the things that we cannot do. However, just the same I wish to start off this discourse by doing just that.

That is, to discuss the money we make and how to make more money.

In the sense of our doing better profitwise by some concerted or common action in purchasing livestock or selling meat, of course, there is nothing that can be done about that. There is nothing that can be done about it legally. There is nothing that can be done about it legally or illegally. There is nothing that can be done about it, period.

If there were something that could be done by inter-arrangement, even if it were legal, it would be the worst possible thing that could happen to us. That would be the method of the cartel. And the cartel is the businessman's route to socialism and decay.

Fortunately for us in this free-wheeling, free market system we have been and will remain fiercely competitive. Fortunately for us, we can make no money on the animals you kill and you can make no money on the animals we kill, and in the nature of things we must go our individual ways, competing with all the skill we can muster, on the one hand for the livestock of the farmer and on the other hand for the patronage of the meat consumer.

In this system, led on by the sureness of our being able to sell so close in time to the purchase, and the relative safety in that circumstance, we have been shaving our profit too close.

It is no paradox at all but merely a simple, natural fact that the safety of our close-to-cash method of doing business is also a hazard. It causes us to cut the margins of safety too close. This is a basic fact in more than one business in which there is always a source of supply and always a sales outlet *at a price*. Another low margin business, for example, is the flour milling business.

The hedging system permits a sale against the purchase. The hazard is reduced. The product is a staple, not too different from the other man's product. The margin of operation therefore inevitably is close. The flour mills have suffered, and one of the grand vocations of American enterprise, that of the miller, has suffered. Similarly, our packinghouses have suffered in like circumstances.

We have cut it so fine that last year the average pack-

inghouse was able to retain as profits only six-tenths of a penny of each dollar received. To our knowledge, this is the lowest profit rate in all business.

It is too low! It does not provide enough dividends; it does not provide enough research; it does not provide the very large funds which should be put each year into new equipment, new plant, and in modernization of operation.

We need the more than 4c on the dollar received by the average manufacturer of the country last year. He is doing a wonderful job of plant replenishment and expansion, and with that kind of profit so could we.

Why talk about it, if nothing can be done about it? Well, at the least, we should like to shame the uninformed or untruthful people who confront us with weird statements which indicate a belief that packers make large profits.

Now, though nothing can be done about our situation by action or arrangement, it may be possible to do some good to repeat to you again and again to stop paying more for livestock than you can afford, or selling meat cheaper than you must in order to make a decent profit.

If managements in the packing industry would only know their costs, know these costs which are so subtle and complex and yet so real, that would help in reducing the futile struggle to buy livestock at any price.

The urge to keep the plant going must come face to face with the necessity of not paying too much and, somewhere, a sensible compromise must be drawn.

There are many times in the year, particularly in certain seasons, when raw material is low and there is the desire to maintain numbers, when we of the packing industry are paying more than we can possibly afford to pay for the livestock. Can we not come to our senses in this regard?

Parenthetically, when I say that there are times that we pay more for livestock than we can afford, I am not doing the farmer any ill turn. His interest is that the packer pay all the animal is worth. But his interest is hurt if his packinghouse pays so much that it cannot operate successfully.

The farmer and the packinghouse are in a very real partnership in the production of merchandise which appeals to the consumer. The farmer will be well served if the packinghouse partner has funds for research and improvement, and is not a marginal operator. He will be poorly served by poorly financed processing. The packer has a very real stake in the prosperity of the farmer, as he wants the farmer to continue producing livestock.

In return, the farmer has a very real stake in the well-

being of the packer. He wants a packer who converts the animal he sells efficiently and ably into attractive good food, and who sells that food well. Here is the real friend of the farmer, and we want to preserve that friend in all his usefulness.

It is the common practice of manufacturing to figure every part of the finished product at a profit; every bolt, nut, screw, piece of thread, coating of paint, or what will you, stands its share in making the profit.

But in the packing industry, if we are honest with ourselves, we will have to admit that our livestock buyers pretty much buy our raw materials, not on the basis of what we can get for the product but, rather, on what happens to suit their individual buying situation that day.

Some weeks ago I decided to follow through on the hog kill for a certain week in June. The cost of the hog was determined, and the disposal of the product right down to the fats and hair was shown. On hams, for instance, we found out where they went and what we got for them.

Against a quoted Chicago market and showing cut-even for that day, the hogs showed a loss of 46c per hundred-weight. We found that we should have been able to sell our loins 3c a pound higher and hams and bacon 3c a pound higher to come out. All along the list of primal cuts, we found that we sold too cheap.

Is there some boring into the cost that you can do in your business? I think there is.

Well, maybe enough has been said, more than enough, on my favorite topic. For three years I've stood before you and for three years preached to you on this point. I said last year that I was tired of seeing the low profits in the industry. Now it appears, unfortunately, as the end of the packinghouse industry fiscal year arrives this October, I'm due to feel tired again. If I read the signs aright, more tired!

Now, then, for a happier theme, things that can be done and have been done to improve the industry by joint effort which, because they in no way may be thought to reduce our competition, do not raise the question of legal propriety.

Some of these improvements bear on our profit potential, too, on the long-time potential.

For example, the meat-type hog. You have seen a demonstration of the meat-type hog by the able and well-informed Plager brothers. This hog is a more profitable animal to the processor. It is a more profitable hog to the producer. It is a more acceptable hog to the consumer, and this circumstance is the explanation of the meat-type hog representing a long-time gain in our profit potential.

Pork has been too fat. The word-of-mouth around too many American tables is that the pork is too fat. If the hog industry insists upon disregarding this attitude, it easily may find the day when per capita pork consumption falls in this country like a spent rocket.

In the meat-type hog, we have an opportunity to reverse any tendency to resist buying of pork by the consumer; we have an opportunity to provide the housewife with better pork than she ever had before.

The meat-type hog not only yields a higher percentage of its weight in the valuable lean cuts and so is innately a more profitable hog for the packing industry, but it increases consumption and demand, which will permit a broadened production.

In sounding a call to the packing industry to become

alert and active in promoting and furthering the production of the meat-type hog, an even larger principle of conduct of the packinghouse business is indicated.

That is, a getting away from the old attitude that it is our business only to accept whatever the farmer has to offer us at what time he has it to offer, and to make no recommendation of any kind other than price to this circumstance, and then go on to process the farmer's offering in the best manner we know how.

It is my belief that the point is fundamental to our long-time well-being, that we should have much to say of what kind of product is offered us, so that we can convert that product into yet more attractive consumer foods.

Why not? The farmer himself has only one desire—that what he produces finds favor with the consumer and will prompt the consumer to pay a good price for it. He expects us to know best what the consumer wants and to so advise him. He expects us to pay more for what the consumer wants and to pay less for what he doesn't want.

The vegetable canner has found that he couldn't wait around to take anything offered. He has educated the farmer on what to plant, when to plant, what cultivation to do and how, what fertilizer to use, what help to use (and he provides that help) and, finally, at harvest time, he examines the growing vegetable and advises the producer just when to harvest it.

Now, I am not suggesting for one moment that the hog industry is to any degree parallel with the vegetable industry, or that the time ever will come or should come when the packinghouse does similarly with the hog producer. However, I do say that we ought to be sufficiently interested in what the farmer is bringing us to know about it, to be able to give good livestock production counsel to the farmer, and, in particular, to get behind the production of the meat-type hog.

Many producers are under the illusion that the fat hog, the roly-poly hog, is cheaper to produce. The fact is quite the opposite. Don't we have a reason for making the matter clear? I think we do.

Recently, some of the packers have been paying higher prices for the meat-type hog than for the average market type or fat hog. This is the best possible education in the direction of the meat-type hog. We should pay more for the meat-type hog because *he is worth more on the cutting floor*.

By the same token, we should pay less for the hog that is worth less on the cutting floor.

Another example of things we can do together for the long-time profit of our industry is multiple farrowing. That is, join in the persuasion of the farmer to get away from the one or two crops of hogs a year and come to a practice of four crops a year. This is the system which we call multiple farrowing.

It will mean a steadier flow of hogs to market the year around. It will mean less storage in our business, and less risk. It will get away from the rise and fall of employment in the industry.

And, for the hog producer, it will mean less price discounting of hogs at those times of the year when the packer cannot possibly buy more hogs because his facilities do not permit him to do it; the times of the year when he has to shoo the producer away from the door with an unacceptable price.

For the hog producer, it will also mean that there is no

longer a period of the year when the packer is offering only a limited amount of pork, of which a substantial part is sow pork, so that in this season of the year pork is getting itself a poor reputation with the consumer.

There are many other virtues in multiple farrowing for the producer, one of them being that he can handle the number of hogs farrowed in four spaced crops a year much easier than the same number farrowed in one large spring crop and one small so-called fall crop.

The present method of farrowing most of the Corn Belt pigs in the spring is a survival of the long ago day when it was too cold to farrow the pigs earlier than late spring, when the green grass was their mainstay of feed, and when they had to be marketed eight months or more later in the deep winter so that the packer would have freezing weather in which to preserve them.

Our industry has a great opportunity for joint effort in advancing the common sense practice of year-around hog production.

Now, something needs to be done for beef in joint education, also. The over-big, overfat, highly finished beef animal is a hard baby to sell. But we haven't told anybody about it. We are still holding great beef cattle shows and permitting judges to proclaim as winners these relics of a former day, these masses of fat, these animals whose forebears took championships in Europe where fat was at a premium.

The producers need the voice of the packer to be heard in producing in largest numbers a Prime and Choice beef animal that has the best and broadest of markets.

Now for some other things of joint effort by the members of the packing industry, in these cases, happily, things that already have been done.

I am going to go over them rapidly, for one thing I want to get this over with and to get off my feet—and for another because these are the sorts of things reported to you in memoranda from the American Meat Institute throughout the year.

(1) *Regarding Price Controls:* Your industry, headed up by its professional organization, worked unceasingly for the abolition of price controls. That these unworkable, false, and costly controls have been dropped can be credited to many forces, of which the American Meat Institute is one.

(2) *On Meat Inspection:* Congress has dropped the statute provision that "voluntary" payments by meat packers for meat inspection service may be agreed upon with the government. You know that meat inspection is for the protection of the public, and the public is best and longest served if it pays that bill itself.

The industry and the Institute worked hard to persuade Congress to drop the word "voluntary" from the statute, and thus helped in the elimination of the possibility that a part of the cost of meat inspection could be saddled on the industry.

(3) *Now for the V. E. Program.* Through cooperation with farm groups and veterinary groups and the veterinary department of the government, the American Meat Institute has helped to have passed in 41 of the 48 states, laws and regulations, requiring the cooking of garbage before it is fed to pigs.

This should eliminate in those states a black eye to the public acceptability of pork.

Just what this disease cost the farmers in 1953 is not

ascertainable exactly because the losses were mostly in shutting down of pork consumption in certain states which put on embargoes against interstate pork, but it ran into the millions. And these millions would be but a portion of the millions the disease could cost farmers if permitted to go along unhampered by garbage cooking requirements.

Moreover, the cost very definitely is on the packing industry as well as on the farmers.

Another thing is our continued meat educational program. This is, year in and year out, one of the most important things we can do. It happens that the more the nutritionists find out about human nutrition the more values are found in meat. It is up to the American Meat Institute to advertise those facts in every home of the nation. We must do it or competitive foods will advertise and merchandise us out of existence.

Advertising of meat is only a part of this essential educational program. Indeed, one could make this whole address upon the public relations phase of this education program.

We need and always will need our organization, the AMI, to head up for us and to effectuate for us a public relations program that sets our industry in the right light before the American public.

We need a program which will cause the American people to understand the packing industry, to appreciate its great utility and the wonderful job it is doing, and to be friendly to the industry rather than indifferent or unfriendly.

New uses for tallow and grease. Meat Institute research has found out how to stabilize tallow and greases in animal feeds and has thus extended use of these packing-house products to the tune of a half billion or more pounds a year.

The antioxidant, BHA, developed by the Foundation, is providing stability for animal fat shortening. It is estimated that 1,000,000,000 lbs. of lard and other animal fats are being stabilized annually through this joint effort product.

Another joint effort activity is the constant flow of information that we get from the American Meat Institute.

The American Meat Institute has been repeatedly mentioned and, in so doing, I am referring to the people who run the American Meat Institute. They have been doing a grand job for us.

Perhaps, I should give some of its current statistics as the concluding paragraph in this talk to you.

It appears that meat production for 1954 will amount to approximately 24,800,000,000 lbs., which is slightly larger than the estimated production of 24,500,000,000 lbs. in 1953, though only 2 per cent less than the peak production of 25,200,000,000 lbs. which was produced in 1944.

There may be a little more beef and veal in 1954 than in 1953 but pork and lamb production are expected to total about the same as in the current year.

There will be work for all; there will be opportunity for all to provide nutritious meat for the people of the country and of the world; there will be opportunity for leadership in the whole livestock picture; there will be much inner satisfaction in our work; and there will be, in some degree at least, I trust, some of that rightful and proper incentive-payment known as profit.

Price Is Big 'If' in Future of Livestock Business



*Nelson Crow, publisher,
Western Livestock Journal*

IT SEEMS APPROPRIATE that a Californian appears before the delegates at the American Meat Institute convention. You know, California slaughters more cattle and more sheep and lambs than any other state in the union.

Probably the most outstanding job of advertising of any food product was done over a period of many years

by the American Meat Institute. The value of that advertising carries on, because it sold people on meat as the most important food. There were two outstanding features of that advertising that stand out in my estimation.

1. The fact that every statement was endorsed by the American Medical Association.
2. The series of advertisements which dramatized the team: The Producer, The Packer, and The Retailer.

It is the team that I would like to talk about, and my feeling that we need to have all elements in the livestock and meat industry actually work together as a team in every sense of the word. We need to have respect and understanding of each other and each other's problems; we need a better recognition of the fact that none of us can get along without the other.

There is no surplus of beef in this country, at least in the mind of the consumer. Despite the record slaughter of cattle and calves, every pound of meat is going into consumption; none is being stored in warehouses; none of it should be because the American consumer needs every pound of beef that is being produced if we're going to have a strong, sturdy and healthy people. However, the producer isn't too happy about the prices he is getting for cattle. Is it really necessary to follow the historic idea that the only way to move an extra supply of beef is through cutting prices?

I have been asked to give my opinions on the future of the livestock business. I have brought up the matter of price because the price that the producer and feeder gets will have a great deal to do with the future of the livestock business; the volume of meat that will be produced, and how much meat per capita will be available to the consumer.

The American Meat Institute shows that, over a long period of years, the consumer pays 5.7 per cent of disposable income for meat. All of us, working together, should encourage the consumer to spend that portion of his income for meat. It is a well established fact that today, an hour of labor buys more meat than at any previous time in history. It is doubtful if the industry is

getting a normal percentage of present consumer income for meat.

If we can sell the present volume of meat and induce the consumer to spend 5.7 per cent of income for meat, there is no doubt that the livestock people of the country can continue to produce as much meat as the processors and retailers can sell. Under impetus of war and the strong post-war demand, cattle population has reached an all-time high. There is a lot of talk about the extra plate at every dinner table in another 15 years.

The livestock people can put plenty of meat on that plate if the average good operator can anticipate a reasonable profit. Our national beef cow herd is 122 per cent greater than 15 years ago. The American farmers have increased output of farm products by 40 per cent in volume in the past 15 years, with little or no change in acreage and with a million fewer farm workers.

Livestock producers have tremendously increased the yield of meat per acre and per animal unit. They've done it as a result of research at the colleges of agriculture, the United States Department of Agriculture, and through good management. They've done it through the use of more and better bulls, fertilization of pastures, reduced losses from disease, higher percentage calf crops; through the use of supplemental feeds on dryland and irrigated pastures, creep feeding of calves, the use of drylots in livestock feeding; the growing practice of green chopping of feed. Above all, more meat from the same number of acres has been produced because of the profit incentive.

Certainly one of the pressing needs of the livestock producer is to cut his production costs; this can best be done by raising more meat per acre on the acres we have.

It can be done. Our publication is now carrying on a "more meat per acre from irrigated pastures" program. We are finding that, through good management, proper seed mixtures and adequate fertilization we can produce under ordinary conditions 500 to 700 lbs. of meat per acre of irrigated pasture. Some people are making 1,000 lbs., some more.

This program of seeding land to good pasture mixes and putting water on the land by sprinklers and flood methods started in California back in 1930. From the few hundred acres, the program has spread to 750,000 acres in California, to many more hundreds of thousands of acres in the other western states with irrigation farming.

California carried about 2,000,000 cattle, beef and dairy, in 1918. Now we have 3,300,000 cattle, despite the fact that on public lands we are carrying only 47 per cent as many cattle as we did 35 years ago.

We can produce more beef more economically by feed-

ing concentrates on both dry land pastures and on irrigated pastures. We are putting on beef, through supplemental feeding, at costs of less than 15c a pound; in some cases, at much less than 15c.

Through the combination of good dryland pastures and irrigated pastures, cattlemen in the western country are producing weaner calves that weigh better than 600 lbs.

For example, the Crocker-Huffman Land & Water Co. has doubled the carrying capacity of 30,000 acres of range land by using 3,000 acres of irrigated pasture. They have increased their calf crop from 80 to 90 calves for each 100 cows. They have raised the weight of weaner calves from 450 lbs. to 620 lbs. They have increased the average weight of their cows culled out for beef by 100 lbs. per head.

They have done this by saving their dry feed in the spring, putting the cows and calves on irrigated pasture in the summer months, then putting the cows back on range land after the calves have been weaned. Because of the extra milk the cows get on green pasture, they have extended the period when the cows supply milk for the calves, so that the average weight of weaner calves now runs 620 lbs.

Another way in which production costs have been reduced is through the ever growing practice of chopping green alfalfa in the field and hauling it each day to steers. On one ranch, through the labor of one man engaged in chopping alfalfa, feeding it to the cattle and giving the animals rolled barley and cane molasses, gains were being put on 2000 steers at cost far below that of drylot feeders.

Like many other range states, California has millions of acres of brush land which is of little value. This brush is being cleared at the rate of a million acres annually by burning, bulldozing, and by chemicals and is being reseeded and converted into valuable grazing lands. Again, more beef per acre of land owned, more beef at less cost per pound.

Production costs can be reduced through raising and weaning a greater percentage of calves from each 100 cows. Cowmen are doing this by taking better care of cows, using young bulls and plenty of them, supplementing grass with a salt and meal mixture. There are several dollars difference between the cost of calves when you get a 90 per cent calf crop against an 80 per cent crop.

Cattlemen generally are opposed to price supports on cattle. Yet it must be granted that a good many of them are doing a lot of thinking these days, and if the grain that goes into fattening beef is going to be supported over a long period of years, and it appears that is the case, cattlemen are wondering just how they are to survive in such an economy.

The California Cattlemen's Association has recently completed a poll of its members. Only 11.7 per cent favored price supports.

Cattlemen oppose everything that goes with price supports: the trend toward socialism and dictatorship; but especially they realize that price supports would need to be on a basis of grade, and this would bring back compulsory federal grading of beef, which I am sure no one in the industry wants.

Getting back to my original statement, there is need for the team to work together: The producer, the packer, and the retailer. However, to work together on a team, you have to know each other, understand each other's

F. W. Specht, president, Armour and Company, Chicago.



problems. Most of us remember the good old days when meat was meat; when the packer boasted that he bought everything that came into the stockyards. He slaughtered the animals and sold the meat and the by-products. It was that simple.

Today, however, it seems to be a vastly different story. We're all specialists from the man who makes a business of producing weaner calves, the man who specializes in feeding cattle, the packer who specializes in meat of certain grade and weight, and the retailer who sells nothing but Choice steer beef, and won't buy a carcass that weighs more than 650 lbs.

Consumers are inclined to specialize, too. Everyone wants a steak. Many housewives are now working women in stores, factories, and offices. They specialize in something that can be cooked quickly after they get home from the day's work, something that can be cooked on top of the stove.

No one would have any problems in this business if the famous breeders of the country would develop bulls that would produce steers yielding 85 per cent steaks.

But the cattlemen have Choice steers to sell of all weights, and they have cows to sell. About half of the annual slaughter during the next two or three years should be cows and heifers, and someone has to find a market for them.

Out our way, the packers tell me that 75 per cent of the retailers are now handling Choice beef, but they will take some that grade Good. In the first seven months of 1952, with compulsory grading, only 6.86 per cent graded Prime, 39.49 per cent Choice, 16.76 per cent Good, and 37 per cent graded below good. During those days, you'll recall the percentage of cows slaughtered was below normal.

We've gotten our part of the beef promotion program under way. We're getting wonderful cooperation from radio, television, and newspaper people; from the retailers, the hotels, and restaurants. We're emphasizing the so-called economy cuts of beef at bargain prices.

Retailers tell me that they want 500- to 600-lb. beef carcasses, grade Choice. But a lot of cattle feeders are still feeding out heavy steers that produce carcasses weighing 750 lbs. and better.

If, over the country, the demand is for 500- to 600-lb. carcasses, it would be good public relations and good,

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G. F. Smitskamp, procurement manager, Armour Laboratories, Chicago, at The National Provisioner service desk.



H. H. Corey, president Geo A. Hormel & Co., and newly re-elected chairman of the board of the Institute.

sound business to produce what the retailer says the public wants. Why try to force the sale of something not really wanted?

If the retailer has to trim off 40 lbs. of waste fat, worth only 2c a pound, from a Prime carcass costing 50c a pound, why produce Prime carcasses? That's a problem for the breeder, and for the feeder.

This again emphasizes the need of better understanding between the members of the team. But what about cow beef, the Utility and Commercial grades that nobody seems to want even at bargain prices? Can't the meat packers come up with some answers that would help the producer market his cows? Does it mean more ground beef? Shouldn't more pressure be put on canned beef stew, something that the career girl can put before her husband a few minutes after they both get home from work?

It's difficult for the man who raises cattle and feeds cattle to understand that the only way to move a few extra cattle into beef consuming channels is to cut the price. Surely, there's a better and more scientific means of merchandising meat.

No group better understands merchandising and advertising of food than does the American Meat Institute. No other food organization ever did such an outstanding job of advertising. It would be a wonderful thing if the meat packers of the country would invite the producers and cattle feeders to join the team, and together finance a sound, broad scale advertising program which would put the merchandising of meat on a more scientific basis than by cutting prices when a few extra pounds of meat are on the market.

There's one thing that's certain. We're going to have to feed another 15,000,000 people in just a few years, because our population is gaining at the rate of 2,500,000 every year. But we can't very well get the stockmen to worry about that "fifth plate" at the dinner table when his immediate problem is to sell what he is now producing.

It isn't sound business, or good for the country, to have good young cows sacrificed on the market, because this country is going to need all of the meat that can be produced as our population continues to grow.

You men in the meat packing and distributing business can do a great deal to instill in the minds of stockmen that the business of meat production is the soundest and most essential business in America. There isn't any sound reason for efficient meat producers to go broke when the

consuming public really wants all of the meat that can be produced.

The challenge to all of us is to cut costs of production and marketing, create a broader market for the economy cuts as well as the steaks, for the cow beef as well as the Choice beef, to produce and market as nearly to consumer desires as possible.

It seems to me that we can all have a great and abiding faith in the long-range stability and soundness of livestock production. One of the difficult adjustments for the cattleman is the fact that cattle prices were 152 per cent of parity at the peak in 1951; in July of this year, USDA figures show that cattle prices were 82 per cent of parity, or on about the same level as grains.

As a matter of fact, on July 15 choice grade steers on the Kansas City market were 98.9 per cent of parity; good and commercial grade steers were 96.2 per cent of parity; feeder steers were only 83 per cent of parity. For the most part, these same parity figures would apply today. So it isn't a bad business when slaughter increases by 35 per cent to find that fat cattle are selling relatively better than other agricultural products.

Henry Miller, who built a great land and cattle empire on the Pacific Coast, was asked by one of his banker friends if he hadn't bought about enough land. His reply was classic: "There will always be more and more people, but there will never be any more land."

The truth of that statement is evident today when we see our human population increasing by 2,500,000 each year. We'll never have more land; but we've got to make the land we have produce more and more.

There is the challenge to farmers and stockmen: To produce enough food to feed the teeming millions at prices within the reach of all; the challenge to the packer and the retailer to merchandise the product of the farm so as to encourage young people to stay with agriculture; to instill into young people the dignity and the opportunities that await them in working with the soil.

In my intimate contacts with many ranchers over the seven western states, I have found very few who are discouraged. In our part of the country, nobody has gone broke. In the Southwest, drouth is a more serious problem than market prices.

Western stockmen have faith in the livestock business, faith in the ability of this great industry to merchandise meat; optimism in the fact that meat, more than ever before, is the most important part of the meal in the American home.

No Bed of Roses Nor Crown of Thorns

Dr. Thomas Cowden, director, agricultural economics, Michigan State College.

Agriculture does not consist merely of producing food and fiber for the nation. Before products are of use they must be prepared and delivered to the consumer in an acceptable manner. The consumer has much to say about whether he wants more or less of the food and services we are trying to market, be it production by the farmer, services by the meat packer or speeches by the college professor.

The consumer is spending about 27 per cent of his income for food. Of this, over one-fourth is for meat. Of the total amount of money spent for all food, more than one-half (56 per cent) goes for services performed after the food has been produced by the farmer. So the job of feeding America is only about half done when the food leaves the farm.

I want to make one thing clear in the beginning: That is, I do not know what is going to happen in the future. If I knew, I probably would not be here, and I certainly would not be a college professor.

It is perhaps a good thing that we do not know what is going to happen in the future. All we can do is to present some of the economic trends as they appear to affect the future.

I would also like to make clear that what I have to say has nothing to do with what ought to be, what is fair to the farmer or the meat packer, what people would like to hear, what will elect somebody or some party to office or what I would personally like to see take place. There are a lot of people talking about the future who discuss what they hope will happen rather than what seems most likely to occur.

My contribution, if any, will be in trying to relate the impacts of some of the broader economic trends to your business. It would be presumptuous of me, in a group such as this, to discuss in detail what is likely to happen in the meat industry as far as supplies and prices of the various livestock products are concerned. You have well-qualified men in your employ who follow these things closely. Economic conditions change rather quickly.

A year ago there was much optimism concerning the future of agriculture. In the past year agricultural prices have continued to decline; consequently, there is less optimism about the economic future of the American farmer and the associated agricultural industries.

My talk today is based upon the premise that we will not have an all-out war. If we do have an all-out war, it is my guess that we will again have inflation . . . prices will go up, and considerable inflation will occur, regardless of governmental controls. This talk will be based upon the assumption that the unsettled conditions in the world will continue for most of the next decade.

The Korean armistice will not bring an end to the

tension existing between the various segments of the world. The degree of tension will vary from time to time. This means that large military expenditures will be required, and this necessitates heavy taxes.

PRICE HISTORY: Let us briefly review what has happened to wholesale prices in the United States since 1800. Prices have been anything but stable. There have been four inflationary peaks, each associated with wars: the war of 1812, the war between the states, World War I, World War II and Korea. Prices are now at a very high level in terms of history, even though there has been some decline in the past year. The movement of the general price level is, in my judgment, a most significant factor affecting the economic well-being of the farmer and the businessman.

During periods of rising prices, farm prices go up faster than farm costs. This makes for higher incomes in agriculture. This happened during World War I, during the recovery from the depression of the 30's, during World War II, and again with Korea. The opposite is true during periods of falling prices; that is, prices received by farmers drop faster and further than prices paid by farmers.

In other words, farm costs stay high while farm prices decline. This happened in 1920 following World War I, in the depression of the 30's, after World War II, and is happening at the present time. The fact that all prices do not move together uniformly is of great significance to American agriculture. The amount of money that farmers have had left for their year's work and management has fluctuated almost directly with movements in the general level of all prices.

As a matter of fact, profits in the meat packing industry are not entirely unrelated to movements of the price level. Compared with the previous year, the average level of all wholesale prices has declined in ten of the last 17 years. In eight out of these ten years, when wholesale prices declined, packers' profits, compared with the previous year, also declined.

There were nine years out of the last 27 when packers' profits compared with the previous year and wholesale prices also compared with the previous year moved in opposite directions—that is, when the index of wholesale prices went up and packers' profits went down, or vice versa. In three of these years, wholesale prices changed less than 2 per cent, and in two other years price controls were in effect.

The above is a very rough analysis and I do not mean to over-emphasize this subject of overall price movements. But if you will tell me what the average index of wholesale prices is going to be this time next year, I would be able to guess a lot better what will happen to other things.

Nor do I mean to imply that there is some magic
(Continued on page 250)

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50-Year Veterans

Many of the old-timers who received gold emblems at the annual meeting now are back at work on their second half century of service to the industry. Of the

58 veterans honored, 38 were on hand for the presentation by Ed Henneberry, who then received an American Meat Institute gold button himself.



GEORGE L. BARTHEL, Barthel Provision Co., Inc., Jackson, Miss., and Barthel Provision Co. of Louisiana: He entered the meat business in 1903 as a messenger for Morris and Co. and advanced through many jobs, including manager at the Wilmington branch and at Pensacola, Fla. Barthel worked for short periods for Cudahy and Swift and in 1925 went with Wilson & Co. at Kansas City. In 1933 he resigned from this company and opened his own business as a peddler truck operator in Jackson, Miss. This venture expanded and developed into the Barthel Provision Co., with two units, one at Jackson, Miss., and at Bayville, La. Barthel's two sons, William and George, are associated with the business.

MRS. C. RICE, Blue Grass Provision Co. Inc., Covington, Ky.: In 1901 Mrs. Rice became actively associated with the Chris Rice Packing Co. In 1915 this business was reorganized as the C. Rice Packing Co., with Mrs. Rice as president and her three sons as the other officers. In 1941 the same group organized the Blue Grass Provision Co., with Mrs. Rice as a member of the board of directors.

ALBERT LIST, The Cudahy Packing Co., Denver: His meat packing service began with John Morrell & Co. in Ottumwa. He left in 1908 and worked for several com-

panies in Burlington, Peoria, Austin and Sioux Falls. In 1922, List joined the Blayne-Murphy Co. in Denver, and remained when Cudahy acquired the company's interests in 1933. List was retired earlier this year.

THOMAS E. MURPHY, The Cudahy Packing Co., East Chicago, Ind.: Murphy started with Cudahy in 1903 and remained an employee until he was retired earlier this year. He worked first at Omaha then went to the East Chicago plant, soon being promoted to foreman of the Cudahy refrigerator line dept. He later became assistant car builder, which was his status upon retirement. Murphy's father and brother also were with Cudahy at East Chicago. He is the father of ten boys and one daughter.

EDWARD E. FUERST, The Cudahy Packing Co., Omaha: Fuerst's service in the meat business began in 1903 in Omaha. During 47 of his 50 years in the industry, he has been with Cudahy. Most of his experience has been in the fresh sausage and dry sausage departments. His present position is assistant foreman of dry sausage.

EDWARD DARRELL, The Cudahy Packing Co., Los Angeles: Darnell's entire meat industry experience has been with Cudahy. He started in the Omaha plant shortly after the turn of the century, but in 1904 moved to Los

Los Angeles. He served in the beef kill department the entire time, becoming assistant foreman in 1934. He retired this year.

HENRY D. TEFFT, American Meat Institute, Chicago: After graduation from Cornell University in 1903, Tefft entered the general laboratory of Armour and Company at Chicago and later was transferred to the lard refinery in East St. Louis and in Kansas City. He then joined Geo. A. Hormel & Co., later going to the Harris Abattoir Co., Toronto, now Canada Packers, Ltd., as plant superintendent. He joined the Institute staff in 1925.

MISS AGNES WEGLIKOWSKI, Danahy Packing Co., Buffalo: She began work for the Dold Packing Co. in Buffalo in 1902 in the canning department and during World War I, supervised 100 workers doing Army orders for meat products. She transferred to Danahy in 1939 and has served continuously in the pickled pigs feet dept.

FRANK MURRAY, Geo. A. Hormel & Co., Austin: Murray started in the meat packing business in 1903 when he was 15 years old at the Hammond plant in Omaha. Two years later he went to Winona, Minn. and worked as a butcher for Interstate Packing Co. In 1919 Murray joined Hormel at Austin. He has always been a knife man and worked on the cutting and killing floors until 1925, when he transferred to the boiled ham department as a ham boner.

ALBERT WOLFE, Geo. A. Hormel & Co., Austin: Wolfe began working in the meat business at 20 years of age at the Hormel plant and has worked there continuously in the boiled ham department.

WILLIAM McILVEEN, Kingan, Inc., Indianapolis: McIlveen, started in the smokehouse in the Indianapolis plant and has worked in every department there except sausage-making. At 72 years of age, he is rounding out his career as a watchman in plant security.

HENRY EUGENE GILLIAM, (deceased), Kingan, Inc. Richmond, Va: Gilliam was continuously employed by Kingan since 1903 and at the time of his retirement this spring was assistant cashier at the Richmond branch. He died just a few weeks before the AMI 48th annual meeting. The Gilliam family has quite a record with Kingan. Henry's brother, the late William Lee Gilliam, had 50 years service; and his other brother, Marshall Roberson Gilliam, retired from Kingan with 48 years of service, making a total of 148 years.

JENS LORENS, C. Amend & Sons, Des Moines: Lorens began work with the Agar Packing Co. Chicago, in 1902, later transferred to Oscar Mayer & Co. in the same city and then rejoined Agar at Des Moines. He later went to the C. Amend & Sons plant in Des Moines, Waukon Packing Co. at Fort Dodge, Gus Glaser Provision Co. and then back to C. Amend.

FRANK L. MILLER, Abattoir Nacional, Panama: Miller got his start in the meat industry as a door boy with the John Morrell & Co. lard refinery at Ottumwa. He later worked for the Brittain Packing Co. at Marshalltown, Ia. Miller has had wide experience, such as refinery foreman for Hormel; foreman of tankhouse by-products for Dunlevy Packing Co.; foreman for Nuckolls Packing Co. Pueblo, Colo.; tankhouse foreman for Jacob Decker & Sons; specialty salesman for Armour and superintendent in charge of meat packing and perishable foods for the Panama Railroad Co. He has designed and acted as consultant in the construction of meat plants in Chile



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and Panama, and served the Canal Zone government in Argentina during World War II.

JOHN C. STEWARD, John Morrell & Co., Ottumwa: Steward has had experience in the dry salt, pickle and sausage departments, with the majority of his time spent in the pork trim. For the last four years, Steward has been on the police and watch force. He has a brother, Jay, who in a few months will have completed his half century of service with Morrell.

HOMER B. BURTON, John Morrell & Co., Ottumwa: Burton was first employed in the sausage department in 1903. Twenty-one years later, he was transferred to the kill and cut division but returned to sausage the next year. For the last 28 years, he has been employed in the ham bone department.

GEORGE W. MILLER, John Morrell & Co., Ottumwa: Miller started working for Morrell in 1903 in the lard refinery and has worked continuously in that department.

JOHN GREER, John Morrell & Co., Ottumwa: Greer started in May, 1903, in the sausage department, went to the hog kill and cut department in 1913 as a butcher, and in 1914 was made foreman of the sausage department. He became foreman of the ham boning department in 1921 and retired a few weeks ago.

C. A. IZARD, The Rath Packing Co., Waterloo: He began his packinghouse career with Armour and Company in Chicago in 1897 and served 15 years, first as a timekeeper and then as a salesman. Next Izard managed the car route department for the Cleveland Provision Co. In 1919 he transferred to the Rath Packing Co. in Cleveland and worked 12 years as a Rath salesman in Philadelphia. During World War II he worked two years with the Food Distribution Administration in Washington. He returned to Rath and was stationed at Grand Rapids, Chicago, and at Hendersonville, N. C., where he now makes his home.

JOHN T. JOHNSON, (deceased), The Rath Packing Co., Waterloo: Johnson began his meat packing career with John Morrell & Co. in 1902 in Ottumwa, remaining with that company for almost 24 years before joining Rath. In 1929, he left the Rath beef dressing department and started work as a retail meat cutter but returned to Rath within a year and remained in the lamb cooler department for the next 23 years until his recent death.

ARTHUR M. JONES, Sahlen Packing Co., Buffalo: Jones started work with the Jacob Dold Packing Co. in 1903 as a clerk in the office. He later became branch house auditor and then joined Sahlen.

JOSEPH R. KEYSER, Sahlen Packing Co., Buffalo: Jones started work with Armour and Company, Kansas City, as a pork Skinner in 1892 at the age of 15. In 1925 he joined the Dold company as a hog foreman and remained there until the plant was closed, later becoming associated with Sahlen.

WILLIAM S. WRIGHT, William Schluderberg—T. J. Kurde Co., Baltimore: Wright began in 1903 as a salesman for the Jones & Lamb Co. of Baltimore. In the next quarter century, he worked for the Shafer and Armour companies in the eastern shores sales territory. In 1928 he began sales work with the Schluderberg—Kurde company and retired a few months ago.

WILLIAM K. FREIERT, Wm. Schluderberg—T. J. Kurde Co., Baltimore: Freiert got his meat packing start in 1903 as an office boy in Buffalo for the Dold Packing Co. and was manager of the by-products department when he resigned in 1923 to begin

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work as assistant sales manager with Schluderberg-Kurdle. He was later promoted to public relations manager. Freiert is a past president of the Grocery Manufacturers' Association of Maryland.

ALBERT B. KURDLE, The William Schluderberg—T. J. Kurde Co. Baltimore: Kurde's formal schooling ended when he was 13 years old because he wanted to work full time in the business. He began by selling pork products in the territory between Baltimore and Washington. In 1917 he became treasurer of the T. J. Kurde Co. and when the company consolidated with the Wm. Schluderberg & Sons Co. in 1920 he was elected treasurer of the new firm. He has one son, Thomas J., who is sales promotion manager of the company.

JAMES BABICKY, Wm. Schluderberg—T. J. Kurde Co. Baltimore: Babicky became a helper at the Ruppersburg plant in Baltimore as a boy in 1902 and six years later, became a calf and lamb butcher for the T. J. Kurde Co. He went into business for himself in 1913, charging small packers in Baltimore 25c each for killing, skinning and dressing calves, and \$1 for the same operations on cattle. After World War I service, he went with the Riverside Abattoir and in 1931 transferred to the Esskay company where he is foreman of the beef dressing dept.

FRED LINDEMAN, Swift & Company, South St. Paul: He started his career with Swift & Company in 1903 in the sheep dressing and spent all his 49 years in that department, working in all operations at one time or another.

ROBERT BROWN, Swift & Company, South St. Paul: Brown started work with the company in 1903 in the hog dressing department and worked there continuously for half a century.

JOHN NELSON, G. H. Hammond Co., Chicago: Nelson, has the distinction of never being absent from his work because of a lost-time accident. He started with the company in 1903 carrying a rod and chain in surveying a site for plant buildings and later became a clerk in the team shipping department. In 1910 he was transferred as an electrician to the mechanical department where he now works.

E. W. ROWLAND, Swift & Company, Chicago: Rowland has worked only for Swift, first in 1903 as a messenger in the stenographic department, in the State street branch for two years

Farmer Boy

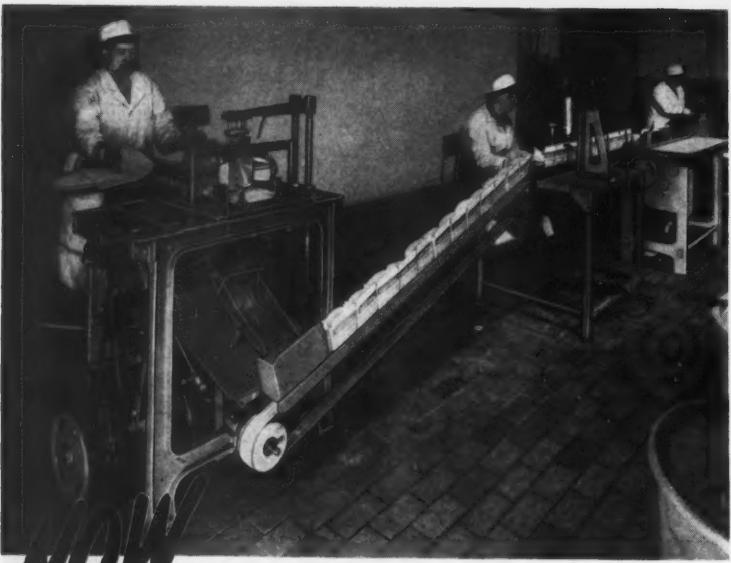
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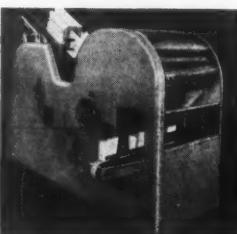
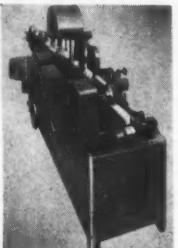
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and 47 years more in the Chicago credit dept. His son, John, works in the Chicago plant food dept.

HERB J. SMITH, Swift-Canadian Co. Ltd., Toronto: He began his packinghouse career at the South St. Paul plant of Swift & Company in 1903 and nine years later was transferred to Toronto to operate the company plant's table ready meats kitchen, which expanded under his direction until the full line was being produced. He is now in the quality control section of table ready meats.

JOSEPH G. KALBFLEISCH, Tobin Packing Co., Rochester: Kalbfleisch got his start with the Dold Packing Company in 1903 in the city wholesale department office at Buffalo and went to Utica in 1914 where he worked under F. M. Tobin and W. Codling at the branch house. He transferred to the Rochester Packing Co. in 1923 in Buffalo and has been there ever since.

HENRY BERNHARD, Tobin Packing Co., Albany: Bernhard entered the meat business in Germany in 1900 as an apprentice and later worked for leading German sausage-makers for nine years. He came to the United States in 1913 and he located with Auth's Provision Co., Washington, D. C. During World War I, he joined the Thomas J. Kurdele Co. in Baltimore. At the close of the war, Bernhard rejoined the Auth organization and remained until liquidation of the company in 1937. He joined the Albany Packing Co. in 1937 and has continued with this division of the Tobin organization.

GUSTAV HINZ, Tobin Packing Co., Rochester: He entered the packing business in Insterburg, Germany, in 1902. During World War I he was a butcher with the German army and later operated his own business in Ebenrode. In 1927 Hinz came to the United States and began work with the Rochester Packing Co. in the sausage department. He retired several months ago.

JOHN J. VACEK, Wilson & Co., Omaha: Vacek began his meat career in 1897 in the pork trim and head trimming department of the Fowler Packing Co., Omaha. In 1900, he joined Swift & Company where he worked for 22 years. Vacek joined Wilson & Co. in 1923.

HENRY P. FRISCH, Wilson & Co., Omaha: In 1899 he went to work in the hog killing department of Armour and Company where he remained for

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several years, then going with the Fowler Packing Co. in the beef casing dept. When the Fowler company was sold to The Cudahy Packing Co. in 1908, Frisch remained until 1927 when he transferred his beef casing experience to Wilson & Co.

JOSEPH J. URZENDOWSKI, Wilson & Co., Omaha: He began his meat career in 1895 in the canning division of the Cudahy Packing Co. at Omaha. Five years later he joined Swift & Company and worked in various departments. In 1909 he went into business for himself but returned to Cudahy in 1916. In 1920 he joined Wilson & Co. in Omaha and has been working since in the hog head and trimming department.

JAMES A. RIHA, Wilson & Co., Omaha: He began work in 1903 with Armour and Company and two years later joined Swift & Company. After 15 years Riha went to the Dold Packing Co. as assistant foreman in the pork packing department and soon became foreman. He also has served as foreman of various other departments and now is foreman of hog and beef offal, beef tallow and meat specialties.

CARL (CHILI) MADER, Wilson & Co., Oklahoma City: His first job was carrying spreaders for the hog butchers in Wichita in 1902. He moved to Oklahoma in 1910 and worked for Morris & Co. In 1915 Mader became associated with the S & S Packing Co., which became Wilson & Co. in 1916. For the last 38 years, he has been a hog butcher.

WILLIAM F. RICHMOND, J. C. Wood & Co., Chicago: He went to work for the Cudahy Packing Co. at South Omaha in the car route dept. in 1902, later transferring to the provisions dept. and came to Chicago with the company in 1911. Richmond left Cudahy in 1919 to enter the provisions brokerage business. For ten years he was with Dan Gallagher and in 1929 went with the J. C. Wood organization where he now is an active partner.

VINCENT ZAKROCYMSKI, Armour and Company, Chicago: Zakroczymski began his packinghouse career with Morris and Co. May 27, 1903, in the canning room and has been in this department the entire time. At present he operates a stuffing machine on the Treet line. Zakroczymski has never been absent or late to work.

EDWARD SCHULZ, Armour and Company, Chicago: Shulz began his career in the East St. Louis plant May



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1, 1903, as an apprentice machinist and transferred to the Chicago plant's machine shop in November, 1907, where he has been ever since.

CLEMENT WEIDMAN, Armour and Company, Chicago: Weidman, who has never been late or absent from his job in his 52 years with Armour, started at the Chicago plant in February, 1901, in the hog dressing department. He worked on nearly all the hog dressing operations before transferring to the sheep dressing department where he is now employed. A widower, Weidman lives with his sister, Telka Petraskiewicz, who has worked at the Chicago plant since 1936.

W. J. O'NEILL, Armour and Company, Chicago: O'Neill has been with Armour nearly 55 years, starting in 1898 in the Omaha plant's box factory. He was out of service for a few weeks during 1899, but rejoined the Omaha box factory in April of that year and was made factory foreman in January, 1905. Since April, 1919, he has been in the general office purchasing department, Chicago.

J. E. REED, Armour and Company, Chicago: Reed joined the company August 13, 1902, in the general office transportation department and in 1911 was transferred to Buenos Aires, Argentina, where he worked for nearly five years. He returned to the general office purchasing department as a purchasing agent in January, 1916. He has been in that department since and has been office manager since March, 1932.

P. J. BENSON, Armour and Company, Chicago: Benson, head bookkeeper of current accounts in the branch house accounting department, started with Armour as a billing clerk at the Kansas City plant in December, 1901. He worked at company branches in Ashland, Wis.; Duluth and Minneapolis, Minn.; and Escanaba, Mich., before being out of service for a few weeks in 1910. He rejoined the company's branch house accounting department, and later worked in the Chicago wholesale market. He returned to the general office branch house accounting staff in December, 1911, and has been there since.

WILLIAM ZEMKE, Armour and Company, Chicago: Zemke started at the Chicago plant April 14, 1903, as a messenger boy and shipping clerk in the fertilizer department and in 1910 transferred to the railroad and switching department, now known as the

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yardmaster's office. He was appointed assistant department superintendent in 1916 and was transferred to the transportation and car lines dept. of the general office in 1917. Two years later he returned to the Chicago plant yardmaster's office as assistant general yardmaster and has served in that capacity ever since. Zemke has two brothers, Fred and George, also employed at the Chicago plant.

HARRY B. JEFFERS, 31st Street Auxiliaries, Armour and Company, Chicago: Jeffers celebrated his half century of service in the industry with Armour July 3. Now a C & R accountant, he began his career as a messenger in the Chicago plant ham house and later worked a short time in the credit department before moving to the construction department. He was in the Navy during World War I and on his discharge worked on the construction of the St. Paul plant. He joined the 31st street staff in 1922.

E. H. COLEMAN, Armour and Company, London, England: Coleman started with the Morris Beef Company, Ltd., August 17, 1903, and worked at the Smithfield Market in various office departments until World War I. After overseas military service, he was named assistant accountant at Morris & Co., holding that position until 1929 when he joined the London office. He was in charge of the general accounting department there for several years until he retired recently.

JOHN W. COX, Armour and Company, Forrest City, Ark.: Cox has spent his entire 50 years Armour service at the refinery division's Forrest City, cotton oil mill where he started in November, 1903, at the age of 15. He is currently handling building maintenance and the supervision of fire fighting equipment.

S. J. PRZYBYLSKI, Armour and Company, St. Joseph, Mich.: Przybylski joined Armour, St. Joseph, as a laborer in the sweet pickle department, June 18, 1903, and less than two weeks later the plant burned down. He worked on through the plant reconstruction and when operations were resumed he went back to his original job. He has held every job in the curing department as butcher, inspector, assistant foreman and foreman. His son, Edward, works in the plant's box factory and cooper shop.

CHARLES GUDAT, Armour and Company, Peoria, Ill.: Gudat started to work in the packinghouse industry



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when he was 17 with the Wilson Provision Co. as a laborer in the fresh pork division in 1902. He worked at different jobs in the pork cutting and packing departments and was made foreman in 1915. Armour purchased the plant in 1935 and Gudat stayed on as foreman. He transferred to the plant police department in 1938 and is currently a gate watchman.

MIKE YOKUBAT, Armour and Company, East St. Louis: Yokubat was born in Lithuania and came to this country when he was 21 years old. He joined the sweet pickle department at the old Morris plant in East St. Louis and has been in that department ever since. Yokubat has worked on all the operations in the department.

R. A. CRAIG, Armour and Company, Fort Worth: Craig started with Armour, Fort Worth, when he was 14, helping to construct the plant. He stayed on to take a job in the refinery testing oils. Craig served with the Army in France during World War I. At that time, the army enlisted many Armour men to help build and operate a meat storage plant in France. Craig says that if he had his life to live over he would choose a career with Armour.

FLETCHER EDWARDS, Armour and Company, Kansas City: Edwards began with Armour at Kansas City as a door boy in the smoked meats department when he was 13. After four months he was an office boy in the pigs foot department and later was appointed a department clerk. A few years later he transferred to the pork cuts department and remained there until 1922, when he was named foreman of the pigs foot and tripe department. After that department was closed in 1940, Edwards worked in several other divisions. He has been in the vinegar pickled meats department since 1944. Edwards has one son, Ben, an assistant foreman in the Kansas City plant's hide cellar.

GEORGE GUILLAUME, Armour and Company, Kansas City: Guillaume has spent his entire 50 years service at the Kansas City plant, starting as an office boy in the sausage room when he was 13 years old. He worked in the sausage cooler, the box house, and as a driver. He was appointed a sorter in the sheep department in 1922.

JOHN M. CHRIST, Armour and Company, Pittsburgh: Christ started at the Pittsburgh Provision & Packing Co. in November, 1902, in the fertilizer department. He was department

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foreman within three years. During his career he worked in the plant's pork packing and shipping, curing cellars, as assistant beef kill foreman, foreman of the smoked meats, boiled hams and sliced bacon departments, as a general line salesman, and in the advertising and merchandising department. Recently, he returned to a sales route.

JOHN FRISH, Armour and Company, Omaha: Frish began at the Omaha plant in 1919 after 16 years in the industry. All but one year of his half century of service has been spent in the sheep kill department, where he is known as an all-around butcher.

GEORGE A. SCHMIDT, Stahl-Meyer, Inc., New York City: Schmidt started in the meat business at 17 in January, 1902, by "manning" the broom in Otto Stahl's retail meat market. In 1913 he became secretary of Otto Stahl, Inc.; treasurer in 1916; and, as Otto Stahl gradually relinquished activities, Schmidt donned the "boss's hat." He continued to expand the business. In April, 1928, he took over the long established F. A. Ferris Co. and in that year merged with Louis Meyer Co., becoming president of Stahl-Meyer, Inc. Schmidt became chairman of the board on June 20, 1947, and his son, George, jr., was elected president. Schmidt was chairman of the board of the AMI from 1939 to 1943.

E. D. HENNEBERRY, The Hull & Dillon Packing Co., Pittsburg, Kansas: He started work in the meat packing industry when he was 11 years old during vacation times at the Morrell plant in Ottumwa. Henneberry tied smokehouse strings at 40¢ per day of ten hours, a low wage because Pat Henneberry, his father, had scruples about paying a member of his family as much as anybody else. Henneberry's next job started in 1903 and ended in 1921 at Henneberry & Co., Arkansas City, as salesman and auditor. His last job started in 1921. Henneberry has been president of Hull & Dillon since 1939.

HENRY F. LICHTMAN, Rose Packing Co., Chicago: Lichtman got his start with the Roth Packing Co. in Newark, N. J., in 1902, working part time. He later served as a manager and buyer supervisor until 1917, when he enlisted in the Army. After the war, he worked for Roth until 1933 and then for the Frank Frior Co., in New York. He joined Rose Packing in the Eastern sales division in 1937.

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(Continued from page 239)

formula to having price levels move in the desired direction. To me, price level movements are both a result and a cause: a result of changes in employment, consumers' income, the supply situation and the like; a cause in that the direction of movement affects business decisions.

In some quarters we hear talk about returning to the sound dollar. The sound dollar has not always been defined, but some infer that a sound dollar is one that has a hundred per cent purchasing power in terms of the old pre-war dollar. All I can say is that if prices fall until we have the old "one hundred cent" pre-war dollar, very serious economic implications would be involved, including disastrously low farm prices, unemployment in our cities and low profits for business.

It is my judgment that we should not attempt to shrink our money supply and force prices down to anything approaching the pre-World War II level. There are just too many adjustments involved for all our economy. On the other hand, I am not at all sure that we can maintain the peak where we are now. If we knew enough about monetary management, I think it would be preferable to reduce prices drastically.

It is wholly unrealistic, in my judgment, to expect farm returns to continue at the levels that have existed during most of the past inflationary decade. From 1942 to 1953 farm prices averaged 107 per cent of parity. Parity is that price for farm products that will give them the same purchasing power that they had during the base period of 1910-14. Farm prices were 93 per cent of parity in August of this year.

We are in danger of worshipping at the shrine of parity to too great a degree. In the 43-year period from 1910 to 1952, farm prices averaged 95 per cent of parity. If we omit the two world war periods, World War I and World War II, farm prices averaged 90 per cent of parity.

Leaving out the great depression and the war periods, they averaged about 93 per cent of parity. It is my opinion that somewhere from 85 to 95 per cent of parity is a more normal relationship between prices received and prices paid by farmers than the so-called 100 per cent of parity. Now this has nothing to do with what is fair or what the farmers ought to

have. I simply think this is a more realistic appraisal of what is likely to exist.

Unfortunately I am not one who has a lot of faith in the government's ability to keep things too far out of line from where they might otherwise be under a more free economic condition. The efficient well-organized farm that has not gone into debt too heavily at high prices will be able to operate at around 90 per cent of parity. Agriculture has changed a great deal since pre-World War II. Farm output has increased around 43 per cent. Food livestock production is up about 49 per cent and crop production is up around 32 per cent. Total man hours used in agriculture have decreased 17 per cent.

The use of farm machinery has increased 76 per cent. The use of fertilizers is up 230 per cent. The acres of crop land have remained practically unchanged. Crop production per acre has increased 29 per cent. The American people are today virtually eating on science, and they will continue to do so to an even greater degree in the future.

SHORT-TERM OUTLOOK: Let us first consider the overall business side of the picture. During 1953 most business indexes were either at or near record levels. After all, our economy has been operating under forced draft for quite some time. By 1954 we should be past the peak of our defense expenditures. Definite steps have been taken to check inflation. We have a truce in Korea.

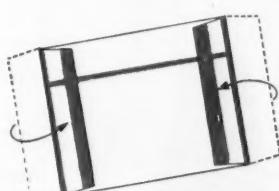
I expect the 1954 demand to be strong for the products you have to sell, but not quite as strong as in 1953. I do not expect a depression, but I do anticipate some slackening from peak levels. Business investment and residential housing will be down moderately, unemployment up a million or so. Inventories are not likely to expand in 1954 and a moderate liquidation will be experienced.

The real output of the economy may be down about 2 per cent from the 1953 levels. The cost of living index could be 2 or 3 per cent lower and wholesale prices from 3 to 5 per cent. This will not be a depression—there will be a lot of bounce and vitality in the 1954 business sector. It could mean, however, that the consumer will be more cautious in buying. It could also mean that the business man might have more opportunity to increase the efficiency of labor than



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Now let us consider the short-time outlook for agriculture. The index prices received by farmers on a 1910-14 base reached an all-time high of 313 in February, 1951. In the first year after that they declined about 8 per cent from the peak, in the second year (February '52 to February '53) about 8 per cent, and during the last six months they have declined about 2 per cent. So farm prices are now about 18 per cent below the high point reached in February, 1951.

The fact that farm prices are declining is not a particularly disturbing factor in itself, except that this decline has taken place at a time when business activity and consumer incomes are at a very high level. The recent price decline is not the first experienced since World War II. From January, 1948, to December, 1949, farm prices declined an average of 24 per cent. With the Korean War, farm prices increased rapidly, and even with the present decline they are still slightly above the pre-Korean level.

Now let us look into what might be some of the causes of this recent decline. The 1952 production of agricultural products was 4 per cent higher than the previous year. This year's is indicated to be slightly smaller than 1952. Exports of farm products were down approximately 30 per cent compared with the high level that existed in 1951. The combination of increased production and a drop in exports meant that there were considerably more farm products to be disposed of on the American market.

Crop prospects as of September 1, 1953, indicate the third largest crop on record. It is about 2 per cent smaller than last year's. Despite re-

cent declines, large corn and hay crops are forecast. Feed grain production, although less than in most of the recent years, is larger than is usually consumed in a season. With the large carry-over, there will be an ample supply for the livestock. It appears that there will be large supplies of beef for the next several years. With the exception of seasonal changes, substantial increases in hogs cannot occur before the fourth quarter of 1954.

It looks to me as if the price relationship that existed between American farm prices and American industrial prices could not be maintained even with high business activity and good consumer incomes. In other words, we may be returning to more normal conditions.

While any price decline to a producer or to any one of us is very distasteful, it is my judgment that the present situation does not spell disaster for American agriculture, and that it is not of such great severity that we must act as if we were headed into a depression.

The decline in cattle prices has been drastic, but a review of the long-time relationship between cattle prices and other agricultural prices indicates that cattle prices were out of line and could not be maintained indefinitely at the previously existing level.

It appears that the year 1953 will be less favorable for the farmers than the year 1952 was, due primarily to the drop in farm prices while farm expenses remained high. It is likely that net farm income may be off somewhere between 5 and 10 per cent compared with 1952, which was down considerably from the 1951 level. It appears that the year 1954 will be similar to the year 1953 from the

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farmer's standpoint, except that I do not expect the rate of decline to be as rapid.

I would guess that 1954 will not be a good year for American agriculture in terms of conditions that existed during the wartime period, but neither will it be a disastrous year. By the foregoing, I do not mean to imply that there will be no agitation or discontent, or that there will be no problems in the agricultural sector of our economy. Actually, there is likely to be much room for complaint when we compare the agricultural situation with previous conditions.

It is my judgment that wheat is headed for trouble. The price of wheat is higher than we can maintain over a period of years. Governmental programs may keep the price up for a few years, but sooner or later the economic facts of the situation will have to be faced. Remember, I am not discussing what I would like to have happen or what ought to be.

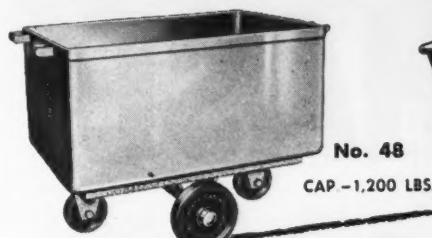
LONG-TIME OUTLOOK FOR AGRICULTURE: The long-time outlook for agriculture varies greatly according to the approach taken. There are some who envision an acute shortage of food; there are others who view the great production capacity of this country and predict disastrous agricultural surpluses. I do not foresee a shortage of food in this country. This does not mean that all the world will be well fed, well housed and well clothed.

My remarks concerning the long-time outlook for agriculture are based on the premise that we will not have an all-out war. In the event of an all-out war, however, there will be inflation, high incomes and much demand for the products of agricultural industries.

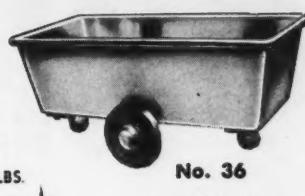
I cannot see a very bright future for the small, inefficient farm. Our new technologies in agriculture are requiring more and more capital and larger farms in order to operate efficiently. This does not mean big corporation farms, but larger commercial family farms. Actually, the proportion of the farm work done by the farmer and his family is greater today than it was 40 years ago. The farmer who has an efficient operating unit and is in a position to equip it in terms of modern know-how should be able to get along in a rather satisfactory manner during the next ten years.

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potential in American agriculture. Professor Heady of Iowa State College recently published an article in which he stated that with existing know-how and the same acreage of land Iowa could produce, year after year, 50 per cent more grain and 170 per cent more forage in the form of hay and rotation pastures than she is now.

Production figures of this kind cause one to wonder if American agriculture does not have the capacity to produce more than is needed for the American economy and the export markets during the next decade. From the standpoint of production, therefore, I would say that we have the ability to produce; the amount and type of production will depend upon the existing price relationships.

The well-being of the American farmer is closely tied in with the export market for farm products. While the domestic market is by all odds the most important market to the farmer, the export market does influence, very materially, the prices received. I am not too enthusiastic about the possibility of a great volume of exports, unless we continue a give-away program.

The large volume of agricultural exports for the past several years has been due to the fact that Europe has not restored her production, plus the fact that by one means or another we were extending credits, which greatly facilitated the movement of our products. Because of the dollar shortage, when other countries have dollar exchange they tend to seek needed food supplies elsewhere and conserve their dollars for purchase of our industrial products.

While the export market does not look too bright on a commercial basis, nevertheless I feel that as long as present international tensions continue to exist a considerable quantity of our excess production will find a use in foreign areas.

One of the optimistic factors in the agricultural picture is our tremendous increase in population. We now have about 28,000,000 more consumers than we had in 1940. It is estimated that by 1960 we will have 16,000,000 more than we now have, or a total of about 179,000,000 people to feed. Some people dramatize our population increase by calling it the "fifth plate"; that is, where we had four people in 1950 we will have five people to feed by 1975.

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at the rate of about 1 1/2 per cent per year. While there is no assurance that this high rate of population increase will continue, it does appear almost certain that the increased population will provide an expanding home market for the American farmer. If we can maintain a fair degree of business activity, with a good distribution of consumers' purchasing power, the American farmer should have fairly good markets for his products.

I am not unduly pessimistic concerning the next decade for American agriculture, neither am I bubbling over with enthusiasm as are some of our outlookers.

EXPECT ANOTHER "1922-29": To me, a most significant factor in discussing the long-time outlook for American agriculture is what I call the normal movement of prices and price relationships. If we have checked the inflationary spiral in prices and if we assume that prices are to decline slightly over the next decade, I can perceive a situation in which prices received by farmers are low relative to farm operating costs.

We know that once prices go up, many of the costs of doing business, such as freight rates, wages, rents, machinery and marketing costs, are also slow to come down. It is not at all difficult for me to see a situation in which farmers could be faced with high operating cost relative to prices received. This situation, in my judgment, could prevail even though we have a high level of industrial business activity and good consumers' income.

If I had to make one definite guess as to what the future holds for American agriculture, it would be something like this. Agricultural incomes will be lower in 1953 than in 1952 by something like 5 per cent. The year 1954 will see further declines. After this, barring an all-out war, I would guess that agriculture may be headed for another period similar to that which existed between 1922 and 1929—one in which we had fairly good industrial activities, one in which farm costs remained relatively high in relation to prices received by farmers.

Farm prices during this period averaged between 87 per cent and 95 per cent of parity. Those who contracted high indebtedness during the inflationary period of World War I were in trouble. Wheat and, later,



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cotton were in trouble. I expect somewhat the same thing to happen again. I do not feel that this will be a disastrous situation for agriculture, but it is a long way from the conditions farmers experienced during the war years.

Again, I would like to remind you that this is not what I would like to see or what I hope happens. It is just a guess as to what we may likely see. Nor do I want to leave the impression that I believe history must repeat itself. The future will, of course, not be exactly like that period. We have a number of techniques which should help. What I am trying to say is that there will be a strong tendency in that direction largely due to price adjustments in a deflationary period following a rather long and pronounced period of inflation. The more we can do to prevent a drastic deflation in prices, the less will we have problems in agriculture, and as far as that goes in the rest of the economy also.

I have a feeling that we know pretty well how to control inflation by monetary and fiscal means if we had the political fortitude to do so. I have much less confidence in our ability to prevent deflation by such means. We can restrict the supply of money and credit, but it is very difficult to force people to borrow money or to use credit if they cannot see an opportunity to obtain a justifiable return.

It is my guess that there will be plenty of pressure for governmental intervention in the pricing of farm products. We will likely have production control programs—not because of enthusiasm for them but by default. We (you and I and thousands of others) have not been able to come up with a better program that is politically acceptable. Herein lies a real challenge to all of us.

Where are we on this question of controls and agriculture? We have seen farmers vote overwhelmingly in favor of wheat quotas. I have not fully digested just what this means. Certainly the premium for voting for quotas was quite high. Farmers did not have a choice among alternatives—this was either/or. I am afraid wheat farmers will in the end get both controls and lower prices. In my judgment the high supports for wheat cannot be maintained even with controls.

You are rightly concerned with the

effects of high support prices, controls, the use of diverted acres and the like on the livestock industry. It is my judgment that high supports increase the production of feed crops; in time this will cause more livestock to be produced. Of course, much depends upon the price relationship between feed crops and other supported crops. With high supports, after a while it is necessary to put on controls—usually voluntary at first and then compulsory. These controls cause farmers to plant crops on their better land, to fertilize more heavily, and to use other practices which increase yields.

The unused acreages (called diverted acres), taken not only from the feed grains but also from the food and fiber crops, are planted to grasses which go into livestock. It therefore seems to me that high supports without controls bring forth greater feed supplies, and with controls force more land into the production of things used to feed livestock. In both cases, it is probable that more livestock would be produced than otherwise, unless we adopt much stricter controls than have heretofore been considered. This would also mean more meat to be processed.

In my judgment there is much to be said in favor of flexible price supports at lower levels. High rigid supports mean controls. If maintained over a period of years, controls cannot be voluntary but will have to be compulsory. I doubt if they can be confined to a few crops; they will have to include "volume controls" and control of diverted acreages.

Flexible price supports at lower levels give the agricultural industry a chance to see if the farmer can be protected from severe price fluctuations and at the same time afford an opportunity to work out economic adjustments without entangling the whole of the agricultural industry (farmers and handlers of farm products) in a maze of stifling regulations.

CHALLENGES AND OPPORTUNITIES IN THE MEAT PACKING INDUSTRY: You cannot separate the problems of agriculture from the meat packing industry any more than you can completely separate your procurement and sales departments within your own business. There is no use whistling in the dark—there are some real problems within agriculture; some are economic, some are

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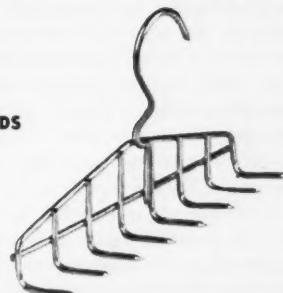
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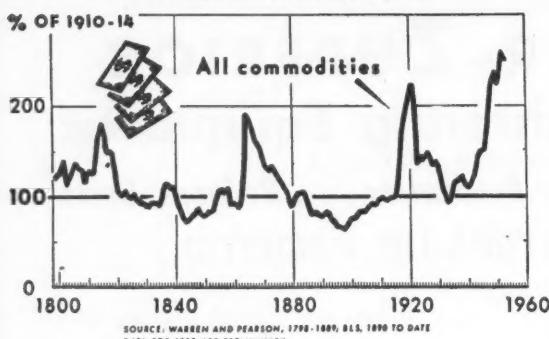


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The National Provisioner—October 17, 1953

WHOLESALE PRICES



U. S. DEPARTMENT OF AGRICULTURE

NEG. 47538-XX BUREAU OF AGRICULTURAL ECONOMICS

FIGURE 1

social and some are political problems. An entire book could be written concerning any one of them. However, the really important problems facing the livestock industry are the same as those facing other citizens.

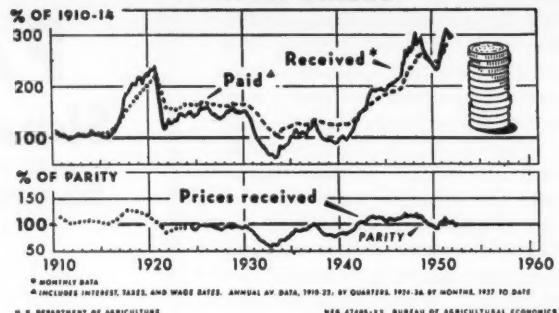
I am going to list six challenges which I consider of major importance under present conditions.

1. There is a real challenge to sell more meat. Now, the livestock industry cannot pull rabbits out of a hat. Nevertheless, the record indicates that the production of meat requires considerable agricultural resources. An expanded market for meats would relieve a lot of pressure in the agricultural sector of our economy. It takes money for the consumer to buy meat and it costs money to produce and merchandise meat. Some people overlook these simple facts. I think we will all agree that whether we like it or not something is going to be done in agriculture. It therefore behoves you who know more about the merchandising of meat than any other group to put some of your best brains on this problem and relate it to the agriculture surplus problem.

2. There is the problem of meeting the needs of agriculture without getting all tied up in governmental controls. We do not have the answer to the farm price problem. I am not sure that we are even close to it. It is one of the big problems facing the American public, tremendously complicated both from the economic and from the political angle. It is one that the meat industry cannot afford to disregard. Agricultural problems cannot be met by flippant remarks or mere political promises. It is important to all of us that we face them in a realistic manner. Not the least of these problems is the role that the government is going to play in regulating farm prices. High fixed prices above the free market level involve controls. A progressive agriculture with millions of individual farm business men making individual decisions as to how to operate their farms, how to adjust to changing conditions in order to maintain the greatest profit, is one of the greatest assets that this country possesses. If farmers insist on high support prices, then they will have to accept the accompanying controls. In my opinion, we have never experienced the type of controls necessary to maintain some of the existing prices during a non-inflationary period. If continued, these controls will eventually spread to the packing industry.

3. Another big challenge is to bring about greater

FARMERS' PRICES



U. S. DEPARTMENT OF AGRICULTURE

NEG. 47408-XX BUREAU OF AGRICULTURAL ECONOMICS

FIGURE 2

consistency between our farm programs and our international policies. Sound international relationship is undoubtedly one of the key problems of our time. Agricultural programs should contribute to, not hinder, this objective. The American farmer and the merchandiser have a real interest in maintaining a large volume of agricultural exports. To export we must also import.

4. There is the challenge of better public relations. If what I have said is only half correct, you can see that we are in for a period of strained relationships between the farmer and the packer. Industries serving agriculture will be subjected to much more criticism than they have experienced during the past decade. It is difficult to explain to farmers why the price of things farmers buy or the marketing cost does not come down in the same proportion as the price of the products they sell.

5. There will be increased pressure for greater efficiency. Increased costs cannot be as easily passed on in increased resale prices. Competition will intensify. The fellow who can cut cost, produce and merchandise efficiently will progress. The inefficient will and should fall by the wayside. I do not have a great deal of confidence in the ability of government to solve all the problems. I do, however, have much confidence in the ability of the farmer to adjust to changing conditions.

6. There is a real opportunity to meet the challenges of citizenship. It is not enough to be just a meat packer. People working with and contacting others have the responsibility of spreading sound information on some of the broader problems, such as our international responsibilities, foreign trade, various farm programs and the like. They can also be great disseminators of education concerning better production practices and techniques.

If the good Lord has been kind to you when He passed out the talents, and if our capitalistic system of democracy has permitted you to use your talents and awarded you accordingly for your efforts, you then owe it to others to create an environment in which an opportunity exists for them to do likewise.

The outlook for the livestock industry is not a bed of roses nor is it a crown of thorns. There will be many problems.

Some problems will remain unsolved, and there will be new ones which we do not know about now. I am confident, however, barring a destructive world war, that the American people will continue to enjoy a rising standard of living and that the efficient producer of useful goods and services will participate in the rise.

Public Likes Meat; Not Fond of Packers



*Elmo Roper Gauges Attitudes
Toward Product and Industry*

WE STARTED ASKING a cross-section of the general public what they thought of meat and the meat packing industry in 1940. We have just within the last month finished the latest of a series of studies on that subject. If I had to summarize in one sentence what seems to me to be the problem of the meat industry today, I would say that is one of winning

public appreciation for the people and institutions that produce meat. The value of your product, the meat itself, is appreciated a great deal more than you are. We find that meat as a food is widely used, and it is thought by most people to be nutritious and healthgiving and it is widely regarded as an absolute essential in the American diet. The resistance to eating meat we noted earlier has decreased and knowledge of its health-giving qualities have expanded in the last 13 years. In sharp contrast, the growing, the preparation and the distribution of meat are not only little understood, but are subject to some widespread misconceptions and a good deal of criticism.

If that is an unhappy summary of the situation today, I can point out that it wasn't always that way. Back in 1940 the meat industry was plagued with a public attitude of misunderstanding, or lack of understanding, or suspicion, of both the product and of the people who make it. For example, at that time, 62 per cent of the people subscribed to the statement that "most people eat too much meat," and only 25 per cent selected meat as the best source of proteins in contrast with the 41 per cent who do so now.

In other words, in 1940 we found not only a lack of understanding of the economics of the industry, but we found that most people who liked meat explained its virtues in these terms, "Well I like the taste of it," or "When I get through with a meat meal, I feel satisfied," but when we probed as to their recognition of the real values of meat, there was very little knowledge of it.

"Is meat a good source of protein?"

"Oh, no, you must be thinking of bread and potatoes."

"Is it a good source of vitamins?"

"That's leafy vegetables you are thinking of."

Along with this lack of any real reason they could give for eating meat, was a feeling that they ate more than was good for them because too much meat gave you high blood pressure, or something else.

It is no coincidence, I think, that the rise of meat con-

sumption in the United States has been marked by a commensurate rise in people's positive thinking about the nutritive value of meat. We know by research that the more sound reasons people can give for doing something, the happier they feel about doing it and the more likely they are to do it.

Today, meat more than any other single food is considered to be the most nourishing food. That rating given meat had increased by 24 per cent by 1950 and in this last survey, meat nosed out milk as being regarded as the single most nutritive food. For protein content today, meat is ranked far ahead of any other competitor and the appreciation of the protein content has risen appreciably in the last decade and increased by two-thirds since 1940. So, we find that the specific knowledge of why meat is good for you has considerably increased. I think perhaps the most encouraging part of all is that meat is regarded as an essential part of the diet of all people. There was a time when people were willing to admit that meat was a necessity for men doing good, heavy, manual work, but not a necessity for others.

Today, however, 63 per cent of the people say that meat is an absolute essential in the daily diet of women who are running homes, and 60 per cent say it is an absolute essential for people doing desk work. So the feeling that meat is good for people now runs clear across the board and is not just held by the people who do heavy work.

While this greatest acceptance of the health-giving values of meat has shown a considerable gain in the last decade, the job isn't by any means done yet.

For example, let's take that 31 per cent who say that meat is the single most nourishing food. Well, 31 per cent is high, but it isn't 100 per cent. It has quite a distance to go.

Or, take the 41 per cent who recognize that meat is the best source of proteins. That is high. Two-thirds of them in the last decade—but it still isn't 100 per cent.

Starting back in 1940 I think we found what can be best described as a chemical trace of people who thought meat was an excellent source of vitamins. The vitamin campaign went on through your advertising and that jumped up to 80 per cent, but it hasn't increased since then.

Another unfortunate thing, a minority still fear that they eat too much meat from a health standpoint. As a matter of fact, 16 per cent of a cross-section of the American public said that somebody in their family ate too much meat. When we asked them why they thought they

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18. W. E. Wilson, Indianapolis; R. R. Kasson, assistant manager of sales, Kalamazoo; Clay Zinser, St. Louis, and Julian Brigham, Des Moines, all of Sutherland Paper Co.

ate too much meat, they said they ate more than was good for them.

Another uncompleted job lies in the fact that all meats are not regarded to be equally nourishing. Beef is still considered as the most nourishing meat by 73 per cent, but pork and veal are considered less nourishing by 34 per cent and 24 per cent respectively. Nineteen per cent of the women think there is less value in a beef stew than there is in steak, and only 14 per cent of the people think that sausage meat compares with roasts or chops in food value.

Another piece of unfinished business is that sharp distinctions that are made between beef, which is considered easily digestible, and pork, which is thought to be indigestible by a substantial number of people, and the list of other meats by 62 per cent of the people.

So, while there has been marked progress in the appreciation of the product itself, as you compare our earlier 1940 study on what people thought of meat and what specific reasons they could give for feeling it was good for them, with the 1953 survey, there is still some unfinished business.

I think it is important that progress take place because we find that the more reasons people can give for eating meat, and the higher appreciation they put on the product itself, the greater is the tendency to give the industry a better bill of health.

There isn't a straight one-to-one correlation, but there is an indication that it does help.

Let's turn to the appreciation or lack of appreciation of the industry itself. I would say that you face four major problems:

First, meat prices are regarded by the public as too high. There is no doubt that since the end of World War II, meat has borne the brunt of the people's concern over high prices. They have more concern over food prices

Meat Team Huddles

than most other prices, and criticism of meat prices has been at the center of criticism over food prices.

For example, when we ask which of certain foods are too high, a little too high, reasonable or low in price, meat is considered too high-priced by a ratio of five to one. That contrasts, for example, with poultry, which is considered reasonably priced by a ratio of two and a half to one. Or, with eggs, which are considered reasonable by a three to one margin.

Unfortunately, meat still bears the brunt of peoples' concern over prices despite the actual price decline.

More people recognize the price decline, and realize that meat is lower now than some years ago. However, where we had 51 per cent of the people in 1950 calling meat much too high, we still have 43 per cent of the people calling meat much too high.

What lies at the root of this public criticism of meat prices? We asked people what accounted for high prices and we found part of the trouble lies in an incorrect public understanding of the cost of feed, labor and other production costs. Part of the feeling is that the government contributed to higher meat prices through controls and subsidies, but running through public opinion as deeply as any other single thought is a feeling that the meat industry is cluttered up with a lot of middlemen, all of whom get their cut somewhere along the line. There is an additional feeling that this middleman gets more than a fair return for what many people regard as his rather dubious services. This leads, I believe, into the second big problem you face, and that is the feeling on the part of too many that packer profits are too high.

For example, 62 per cent of the people believe that meat prices would be lower if the meat packing industry were abolished and the retailers bought all of their meat directly from the grower.

As a matter of fact, there are lots of misunderstandings,

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and that leads us to the third major problem you face—the terrific misunderstanding of the functions of the industry.

There is a feeling on the part of the public that the meat packer has more control over prices than he actually has. People don't have an adequate understanding of the law of supply and demand and how it works to establish meat prices.

I read an editorial in the *Detroit Free Press* the other day which referred to a news story. Somebody in the meat industry had been interviewed as to his views on Secretary Benson's investigation; he said he welcomed the investigation and believed the study would find the law of supply and demand has a great deal to do with meat prices. The *Free Press* editorial hoped that Secretary Benson could come up with a more realistic explanation than that.

These people who feel that the packers have more control over prices are inclined to lay the so-called high price of meat to the excessive profits of the meat industry. For example, we asked those people who said that meat was too high the cause of it being too high. Twenty-five per cent of the people said it was due to the high profits of the packing industry. Twenty-two per cent said it was high production costs.

Let's look how that reverses itself in the case of poultry. When we asked the people who thought poultry was too high why it was too high, 6 per cent blamed it on high profits and 53 per cent blamed it on high production costs. A majority still believe that the profits in the meat packing industry are unreasonably high and meat packers are singled out more than anybody else as being the people who make those high profits.

Unfortunately, we don't find that feeling decreases as one goes up the education ladder from grade school to high school to college.

That leads us to problem number four and that is the widespread lack of understanding of the essential nature of the meat packing industry. Because they don't understand what you do, there is a feeling of too much profit-taking from useless or little understood functions.

It is true that meat processors are widely considered as contributing to the sanitary distribution of meat and bringing about innovations to increase the efficiency of processing. Nevertheless, their full role as an integral part of the procedure from range to market is not very well understood by very many people. If you ask people actually what constitutes the meat industry, one-quarter of them admit they can't name any single ingredient. When you ask women to guess at how many cents of profit the meat packer gets out of her dollar, the median guess is 32c, which will come as quite a shock to some of the stockholders of some of your corporations.

Almost 50 per cent of the people believe that if packinghouses were suddenly abandoned, the supply of meat would either remain the same or increase, and an additional 17 per cent say they don't know the answer.

Even 41 per cent of the college-educated people say that the supply of meat would be the same or greater if the packers were abolished. Only 51 per cent think that the quality of meat would be worse if you were suddenly put out of business.

With this lack of understanding of the economics of the industry, and the function that you perform, people

know that you exist and they know that you are there, but they don't know what you do, and so they find it very easy to say that whatever it is you do, you get paid too much for it.

We thought there might be some gains in the appreciation of the industry in 1953, because we believed that with prices down people would be over their anger at what they considered to be excessively high prices and would be inclined to be a little more reasonable in giving credit where credit is due, both to the product and to the people who process it. We did find some gains. We found a gain in the number of people who appreciate the quality of the meat itself. More people thought it was the single best food. More people thought it was the best source of proteins. We didn't find any gain in the "all meats are equal" story. Even more discouraging than that, we found no gain at all in the appreciation of the industry.

Just about the same percentages were critical of what you did, and just about the same percentage showed a lack of understanding of what it was that you performed.

We found that actually a few more people in 1953 thought that the quality of meat would be better if you were not in the picture. We found a few more people who thought that prices would be lower if you were not in the picture.

Probably discouraging, too, is the fact that only a third of the people recognized that meat prices are substantially lower.

What does it all add up to? I think one thing in which you can take a great deal of satisfaction is that you have proven that the public can be made conscious of the specific values of meat. Your advertising campaign has apparently had a very large part in increasing public appreciation of the specific values of meat. If they don't have it now, they say, "I don't know why I eat this much meat. I guess it is just because I like the taste of it and I have a weak character."

People now can and do say, "I eat meat because it has vitamins and proteins and is the best single food you can eat."

However, along with that, let us not forget we have unfinished business. People still don't believe all meats are equally nourishing and they still believe that pork is not as digestible.

The industry, as I said, has four major problems. Too many people think that meat prices are too high. Too many people think that packer profits are too high. Too many people think you have more control over prices than you have. And, too many people don't understand what you are doing.

I don't believe that means that your advertising of a public relations nature is no good. You have been telling your story to a selected group. All of our research for 20 years leads us to believe it is much harder to sell ideas than profits.

There is a belief that ideas percolate slowly through the public; that an idea starts with a philosopher and then goes to the great disciples of the philosopher, and from them to the thought-spreaders or thought-disseminators, the people who edit newspapers or write columns or comment on radio. From there it goes to another 10,000,000 people who are more alert than most, who take the trouble to vote instead of staying home, who belong to organizations, who read and talk with each other about problems

of the day. From these 10,000,000 or 15,000,000 out of our total population, the idea is spread to the least alert people, the least conscious, the least politically and socially conscious people. If there is anything to that theory, then the campaign you have adopted of talking to the thought-disseminators may well be paying off.

However, let's face up to the fact that today we don't know whether it is paying off or not. We can't say, as we can in regard to the story you have told about the virtues of your product, that it is proof that you are getting over the other story. You are getting over the story of appreciation of your product. Maybe you are making inroads on the other, but we have no research to show that you are.

I am inclined to believe that no one thing will give an industry a good reputation with the public. I am inclined to think it is a combination of things. Here are some of the things we know. Like Mr. Corey, I could talk all the rest of the day about the things the experts don't know with respect to public relations or communicating ideas

HAVING TROUBLE GETTING AN ELEVATOR? The top two gentlemen managed to squeeze in but the others were not so fortunate. They are, CENTER: W. P. Benghauser and Clyde D. Greeno, both of the Aluminum Cooking Utensil Co., New Kensington, Pa., and H. W. Wernecke, vice president and sales manager, The National Provisioner. BOTTOM: E. Paul and C. G. Aud, provision department, and H. P. Adler, general superintendent's office, all of Swift & Company; R. W. Unwin, assistant secretary, Reliable Packing Co., Chicago, and A. W. Marker, general superintendent's office, Swift.

to people. However, here are some things we do know.

One, we know that public relations is no more than what you do and how you do it.

We know that the packer in any given town, by his conduct, and by his efforts to inform people about his conduct, can help make good or bad public relations for the industry as a whole. In the final analysis, the public relations load rests squarely on the shoulders of the packer.

We do know other things. We do know that an industry taint affects everybody. If there ever is any feeling on the part of any big firms in your own or any other industry that they might gain by pointing a finger at the little fellow and saying he really is the culprit, or if there is any feeling on the part of the little fellow that he can gain anything by pointing his finger at the big fellow and saying, "Look, he is the bad one, not I," he had better forget it. We have found that an industry taint affects everyone.

During 1933 and 1934, when the bankers were in pretty bad repute, some of the little bankers pointed a finger at the big Wall Street firms. They sought, I suppose, thus to divert the blame. Our research showed that the people in the First National Bank of Keokuk, Ia., were considered just as culpable by the public there as the people who run the First National Bank in Chicago or New York.

We know another thing, and that is that better public relations can be established for an industry. There are too many success stories around for us to regard this as a hopeless problem. We have seen too many instances in which an individual has, by doing two things—one, living right, and two, taking the pains to let the public know that he was living right—changed public feeling from disfavor to favor.

We know also how essential is eternal vigilance in this matter of what you do and how well you let the public know what you are doing.

Good public relations for a business or an industry



are never suddenly achieved and then kept achieved, because public opinion is a fluid thing. So far as the industry is concerned, I would like to close by saying that we ought to recognize that we haven't yet found exactly the right combination in this public relations situation as we have on the product side. However, we should keep on trying because there is somewhere a way to find out. The American public is not an unkind judge of anyone, either in the political arena or the business arena, if the public is informed as to what goes on.

Don't Sell Cattle Short; Tide Turning



*Secretary of Agriculture
E. T. Benson is Optimistic*

America is a meat eating country. From coast to coast across this broad land, meat has an honored place in the diets of our people. It is a symbol of good living which marks a vigorous and prosperous nation.

Meat is also tremendously important in our whole agricultural economy. A third of the value of our total farm and ranch production is

represented by the meat from our cattle, hogs and sheep.

Your industry has historically handled its special and complex problems within the framework of a free, competitive system. You have fought against anything which seemed to be undue interference with your legitimate functions, and yet you have learned to live with and cooperate with farm producers and the government in those sound programs which are in the public interest.

You processors are a vital part of the great meat team. Literally millions of farmers and ranchers depend on you for profitable markets for their meat animals. Consumers depend on you for a steady, reliable supply of quality products handled with highest efficiency. Each part of this meat team is dependent upon the others, and the government shares across-the-board in the mutual interest involved.

In recent years, your organization has graphically dramatized the teamwork that is inherent in the meat and livestock industry. Through effective "meat-team" advertising, you brought out the fact that livestock producers, marketing agencies, transportation companies, processors and retailers are all integral parts of the vital chain of meat supply.

Meat has often been in the headlines, and still is in the headlines today.

The cost-price squeeze, which has hurt nearly all agricultural producers during the past couple of years, has hit cattlemen especially hard. They have been caught between rigid high-level feed costs and declining market prices for their animals. This has been a matter of deep concern to all of us.

I need not tell this audience that the producers of your raw material, especially of beef and lamb, have suffered a severe decline in the prices they receive. The great feeding segment of the cattle and sheep industry was first caught in the squeeze last year. This year, the primary producer on range and farm is suffering a serious price adjustment, while held against the wall of fixed costs.

Many producers—and consumers as well—are puzzled

over what seems to them to be too great a spread between what the farmer gets for his cattle and what the consumer pays for meat. The price paid by the consumer is a composite of many costs. It is made up of what the producer, the market man, the transportation man, the laboring man, the processor, the wholesaler and the retailer all get for their services.

Your industry in general has operated at high levels of efficiency. Nevertheless, it is very important that all phases of the industry strive for even greater efficiency and the elimination of any looseness which may have developed in the recent inflationary period. It is of course essential—and especially so in a period of adjustment like the present—that operating costs and spreads be kept at the lowest possible level. It is also necessary that we have the latest and best available information on this whole question.

I announced a week ago that I was asking the Bureau of Agricultural Economics and other agencies of the Department of Agriculture to examine the spread between farm and retail prices, and to report to me promptly. I want to compliment your industry and your trade association on your response to my announcement. Your co-operation in the study now underway is appreciated. I know it will help clarify the picture and bring out the facts regarding margins in the necessarily complex operations which determine meat prices.

The producing elements of your industry are suffering. They need and deserve all the understanding and aid that both you and the government can give them. They are entitled to the facts of costs and spreads in the business of getting their product from the farm to the dinner table.

Let us review briefly what led us into the present livestock mess—what we inherited last January.

The loose and unsound fiscal policies of the preceding administration, and the misguided attempt to suppress inflation by the mechanism of price control, set the stage for disastrous developments. Spurred on by unrealistic price levels, some producers held back breeding stock as the basis for expansion. Some fly-by-night operators got into the cattle business. The increase in cattle numbers was stimulated beyond the increase of the normal cattle cycle.

I recall the effort made by your organization, working with some 60 other groups in the livestock and meat industry, to point out to the previous administration the future dangers involved in attempting to force controls and roll-backs on the industry. The "Common Sense Meat Program," which was developed, discussed and supported by all segments of your industry, was presented to the

government in good faith in an effort to find a way to avoid deadening controls. These warnings and sound suggestions were ignored by those who were either unable or unwilling to face up to sound management.

It should have been obvious to all that continuing price controls and compulsory grading were road-blocks in the merchandising of meat. This was a major contributing factor in developing the problems we now must face with beef and lamb. By last December, the situation for fed cattle was already acute. Consumption of beef was held back by control barriers. Consumer resistance was complicating the problems of the livestock industry.

Yet at this very time the director of price stabilization was shouting a warning that demobilizing the army of price controllers would result in an upsurge of meat prices to astronomical heights.

Your industry suffered for nearly 20 months from controls. Not until the present administration came into office was it possible to eliminate the last of them. By that time, great damage had been done and we are well on the way toward reaping the whirlwind developed by previous bad administration.

Last January 1, we had a record number of almost 94,000,000 head in the total cattle inventory. Under the generally bad situation, severe adjustments were inevitable. They were already on us when we took office.

The first thing we in the new administration did was to unshackle the livestock and meat industry from all restrictive controls. This returned to you in the industry the flexibility essential to market the impending supply of fat cattle ready or being readied for market.

With the huge supply of cattle in sight, it was soon apparent that merely removing road-blocks at that late date would not be enough to correct, within weeks, problems which had been years in the building. I therefore in March called to Washington representatives of the entire livestock industry—feeders, retailers, processors and primary producers. This advisory group faced the issues squarely. After careful study, they made sound recommendations of lasting value to us. As we reported to this advisory group ten days ago, we are following those recommendations.

The advisory group asked for no price-support subsidies. Rather, it felt that government intervention should be kept to the minimum. It strongly expressed the belief that the sort of government aid which could best be used in the emergency would be that which helped the industry work out its own problems.

This kind of aid included coordinated merchandising promotion to acquaint consumers with the availability of abundant supplies of fine meat, supplemental beef purchases for special distribution outside normal trade channels both at home and abroad, needed credit facilities for livestock producers and other supporting actions which would set footings of confidence under the foundation of the industry, to check panic action.

We are doing these things. Following closely the recommendations of the Advisory Committee, we have taken every action which was sound and practicable, and which held promise of helping the industry work out of this tight period. We will continue to follow the recommendations which the enlarged advisory group broadened and reemphasized at its meeting week before last.



Wesley Hardenbergh, president of the American Meat Institute; Ezra Taft Benson, Secretary of Agriculture, and H. H. Corey, chairman of the board, American Meat Institute, and president, Geo. A. Hormel & Co., Austin.

Of first importance in this whole effort has been the remarkably successful drive to market more beef. The response was magnificent when the Department of Agriculture called for a coordinated effort to "let consumers in" on the opportunity to utilize more of the fine meat which was available.

I want to commend you processors for the job you have done—individually and through your trade association—not only in handling the meat supplies but also in promoting much wider distribution of meat and meat products to consumers. You have cooperated fully with the government program. Other segments of the meat team, including the very important food distribution services, also have gone all-out in helping the livestock producer find a wider market when he needs it most.

The results of this joint effort of government and free enterprise can be measured by the fact that the public bought beef at a rate never equaled in our long history. Consumption of beef jumped by nearly one-third. Our Bureau of Agricultural Economics now thinks that per capita consumption of beef this year will be the highest on record—around 74 or 75 lbs. on the average for every man, woman, and child in the country. The previous recorded high of 73 pounds per capita was back in 1909.

Total beef consumption by our civilians this year is expected to approach 12,000,000,000 lbs. This would be more than 2,000,000,000 lbs. above last year, and about the same above the previous record in 1947.

The American people are literally eating us out of the beef problem. And that is a mighty good way of doing it. Consumers get added amounts of a fine, nutritious food. The beef problem will not be aggravated by heavy stocks of beef, government-held or otherwise.

Meat is going into stomachs and not into storage.

And this increased consumption is not just meeting current demand. It is also building good will and future customers.

The millions of pounds of beef the Department of Agriculture has purchased, and will purchase, for special distribution outside commercial channels also is going into stomachs. And, especially with meat which children eat under the national school lunch program, this is helping to make growing friends for an expanding industry.

As you know, our most serious problem now is to move

very large numbers of lower grade cattle at fair prices. We must do everything possible to see that the meat from these animals moves into consumption. This includes making sure that this type of meat is available everywhere at fair and attractive prices. And we must increase our co-ordinated efforts to see that the availability of this fine and wholesome meat is made known to all consumers.

While the action we have taken has helped bring a definite measure of stability, the fact remains that the cattle producer and the cattle feeder have been hit and hit hard by the adjustments forced on them. In many sections, the cattlemen's problems have been severely aggravated by the drought which reached disaster proportions by June.

As soon as the drought developed, we took immediate steps. The President and I went to Texas to study the problems in the Southwest at first hand. We again asked an industry-wide group to meet in Washington to help us develop a sound program of assistance in the new emergency.

After careful study, this advisory group recommended that we take a number of special steps. These included making available Commodity Credit Corporation stocks of corn and other feedstuffs at reduced prices to help farmers and ranchers carry their foundation herds, seeking reduced freight rates for feed and cattle and extending special credit facilities where needed. We have done all these things, giving cattlemen in the drought areas all the sound help we can, and thereby checking distress shipments to market.

Our purchase programs also were adjusted to fit the changing needs. As it became apparent that an emergency situation had developed with lower grades of cattle, we developed the plan to purchase beef and gravy, and hamburger. The market strengthened immediately after our announcement of this plan, again helping to head off panic marketing.

Our purchase contracts are being let in the market place, where they will do the most good. We are not trying to peg the market, but rather to strengthen it. We have avoided stimulating either undue liquidation or unwise withholding. We are trying to buy the right things in the right way.

The recent announcement that the Foreign Operations Administration would use at least \$10,000,000 to purchase meat for export was very encouraging. This will supplement the Greek and other export programs already under way. And I have recently had conferences with the President and top administrative officials, looking into the possibility of still larger export operations to help stabilize the livestock situation.

Let me summarize briefly this informal report on what we have done, and are doing, to help the livestock industry work its way out of the mess we inherited:

We have joined with private enterprise in a successful joint effort to increase the distribution and use of the abundant meat supplies. Consumers are eating the surplus.

We have bought, and are still buying, millions of pounds of meat and meat products for special distribution to school lunch and other outlets outside normal trade channels.

We have taken prompt and effective action on a



The Banquet—

A SATISFYING evening for all who attended. From a dinner of steak, etc., through a succession of entertaining numbers by the Iowa Girls Scottish Highlanders, the introduction of notables in many fields, presentation of recognition award to Thomas E. Wilson and a thought provoking address by Agriculture Secretary Benson (see inset on next page) the affair was one to remember.



broad front to help relieve the disastrous effects of drought.

We have done and will continue to do everything within our authority which is sound and practical to help our livestock men cushion the effects of a bitterly painful adjustment.

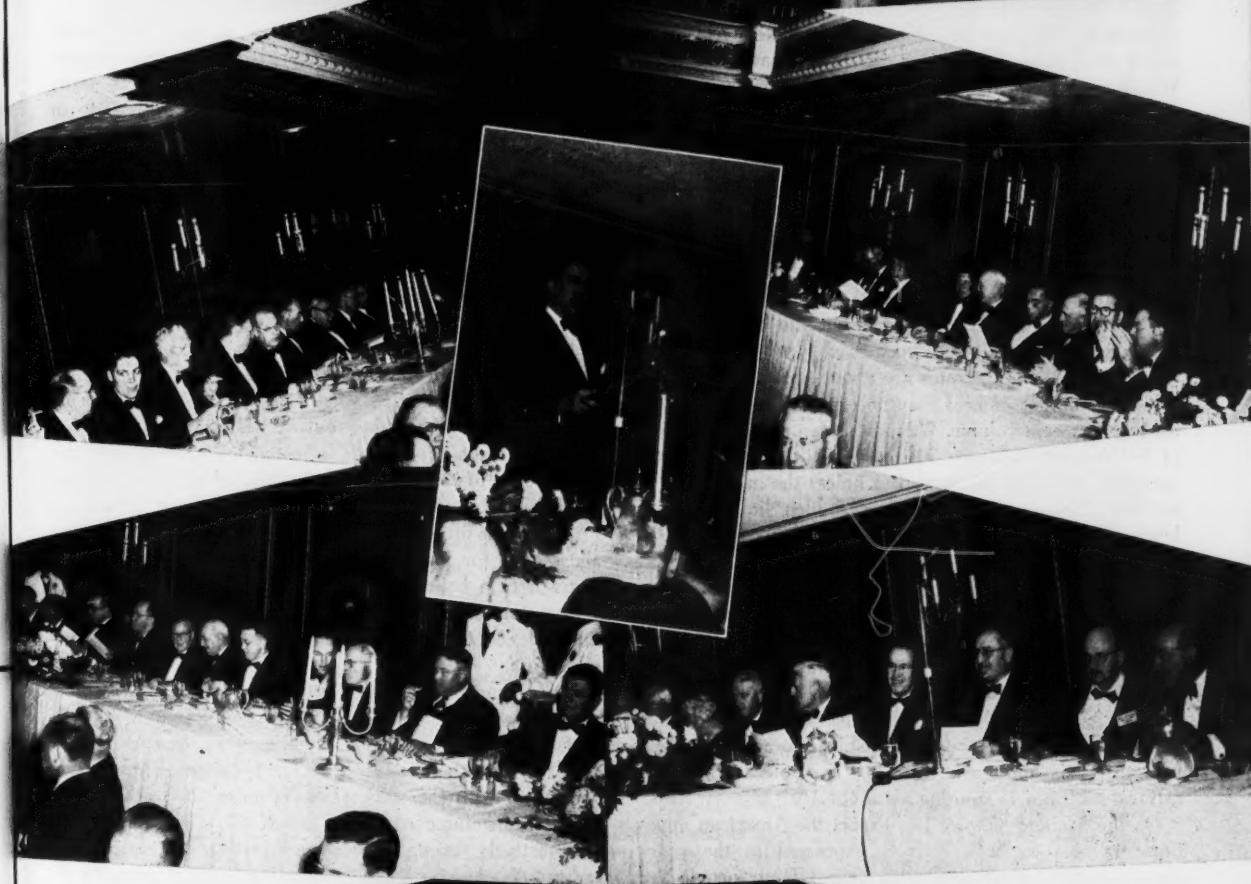
But we have initiated only those emergency measures which can be discontinued when the emergency is past. We will not let temporary measures become permanent problems.

And the whole program is being handled in accordance with the basic principle of full cooperation between government and all segments of the livestock industry. Nothing is being developed in an ivory tower at Washington for imposition upon those who produce, process and market meat supplies.

The gears of government and free enterprise have been meshed to promote a sound and stabilized future for a vital industry.

The record speaks for itself.

May I repeat that I am deeply concerned, as I know



you are, that the impact of this forced adjustment has had tragic consequences for hundreds of thousands of our livestock producers and feeders. I cannot over-emphasize the seriousness of the situation, nor the need for us all to continue every possible sound effort which can help cushion their losses.

A careful look at the present situation, and at what lies ahead, offers grounds for reassurance to the livestock industry. Without being over-optimistic, there is reason to believe that we may be passing through the worst phase of the painful adjustments. The situation already is much more stabilized.

When cattle producers built up their herds so rapidly in recent years, it was inevitable that sooner or later the output rate of cattle slaughter would be very considerably expanded. The increase came abruptly and earlier in the cattle cycle than usual, for reasons I have discussed. Within a single year's time, the industry has swung from adding 6,000,000 head, as it did in 1951 and again in 1952, to achieving virtual stability in numbers, as it is doing this year. It looks now as though cattle inventory numbers will be little different this coming January 1 from those of a year earlier.

Apparently we are making, within a single year, adjustments which normally would be spread out over several years.

The impact has been terrific, but the adjustment is being made. The point has been reached where cattle production and slaughter rates are about equal.

Annual output of beef may be expected to level out at about its present volume. We may see an abundant supply of beef for consumers—70 lbs. or a little more per person—for sometime to come. But unless the misfortune of extreme drought should force a sudden liquidation of herds, there may be no further increase above the 1953 supply.

Looking ahead, prospects for livestock prices certainly do not warrant undue pessimism. Instead of going on up in the cattle cycle toward 100,000,000 head, as some were predicting, we are apparently leveling off at around the 94,000,000 mark. It will not be so difficult to stabilize the cattle market, or make necessary adjustments, from this level. And the relationship between cattle and feed prices is about average. The beef steer-corn price ratio at Chicago is running at about 15.

On the demand side we can expect the American appetite for meat to be effectively expressed in the years ahead—just as it has been this year—if our people are fully employed at good incomes. And as we look still further ahead, we must reckon with a steady increase in our population. We are adding more than 2,000,000 people to our total population each year—more than 2,000,000 additional customers for American-produced meat.

There is sound assurance in this prospect. I do not think anyone expects a return soon to the very high prices of a year or two ago, but an end to the seemingly endless declines of the past two years will be very welcome. It will provide the basis for industry stability.

The whole situation is a challenge for the livestock industry—producers, processors, the meat distributors—with sympathetic and understanding assistance from the government. The job will be to provide this abundance of meat to the American public in a way which will make

certain that consumers can get it, at the same time assuring rewarding returns to producers.

I want to emphasize the stake which consumers have in sound agricultural programs, in programs to insure a continuing flow of adequate food supplies at fair prices. A high-level, balanced diet is essential in building and maintaining the health and strength of our people. To have this, we must be assured ample supplies of meat and other basic foods, year-in and year-out.

When we set out to build strong and enduring farm programs, we are not working in the interests of farmers alone—important as that is in protecting our total economy. We are helping to make sure that the American consumer can continue to enjoy the highest standard of living the world has known.

I have great faith in the ability of farm and trade groups, working through their organizations and associations, to take firm leadership in solving our economic problems. I have spent many years of my own life in this field, and I know what can be done. This includes not only the constant effort toward ever-greater efficiency in operations, but also a steady promotion program. In your case, this involves acquainting the consuming public with the merits and availability of meat and its products.

Maintaining an adequate and profitable consumer outlet for our meat production, including those increases which come with a steadily growing population, will be in the interests of a sound agricultural economy. Livestock fits into conservation farming. Grass and livestock go together. The problem of what to do with the millions of acres which will be taken out of wheat and other crops under current production adjustments, underscores the importance of realizing the full potential of sound "grass-lands" agriculture.

It all adds up to the need to press forward constantly in the search for improved methods and greater efficiency. I am a firm believer in the principle that, for the long pull, our greatest reliance in developing the kind of agricultural economy we need must rest with research and education.

The Department of Agriculture is carrying on livestock research which ranges from breeding and feeding of animals to the quality of meat which goes on the consumer's table. In checking on this research program, I have been impressed with the work already under way.

A large volume of this research work is carried out cooperatively through educational institutions and industry groups. As you know, two very important projects of this kind are being handled by the American Meat Institute Foundation. One relates to meat quality, and the kinds of meat consumers like best. The other has to do with broadening the market for animal fats, including the use of these fats in animal feedstuffs.

Our research men tell me that both these research projects are making real progress and that the Institute Foundation has already made available significant results. They are typical of the kind of work we want to emphasize. It is the long-range, permanent improvements in our agricultural industry which are of greatest meaning. Emergencies must be met, of course, but we all hope and pray that increased efficiencies and better methods will steadily lessen the occurrence of emergencies.

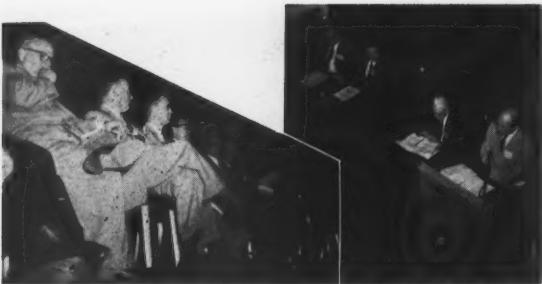
Beef and beef animal questions have been getting most



Joe, Jack, John, Jill

1. G. W. Koch, plant superintendent, and Jerry Clair, both of Republic Food Products Co., Chicago.
2. O. J. McKirchy, jr., assistant treasurer, Estherville, Ia.; H. K. Gillman, Albany, and K. F. Voight, vice president, Estherville, all of Tobin Packing Co.
3. F. B. Schottelkotte, vice president; R. L. McTavish, vice president, and John A. Dupp, president, all of The Dupp Co., Germantown, O.
4. Lee Wallace, sales engineer, Atmos Corp., with Louis Zeleznik, president, and Ben Zeleznik, manager, North River Meat Co., New York City.
5. Paul P. Aldrich, chemist; A. L. Roth, purchasing agent, and Virgil Proost, accountant, all of Krey Packing Co., St. Louis.
6. John Grable, W. E. Oliver, general manager, and H. J. Mackinson, all of Afral Corp., Chicago.
7. William J. Scarlett, food industry manager, Philadelphia, and Robert G. Wren, Chicago, both of Minneapolis-Honeywell Regulator Co.
8. J. Frank Eaton, Chicago district manager, and William H. Olney, Kalamazoo Vegetable Parchment Co.
9. Bill Deutsch, sales manager, and Bill Glover, jr., vice president, Sweeney Lithograph Co., Belleville, N. J.
10. Felix Cristion, president, Packers Management Engineering Co., Levittown, Pa.; Ed Harrison, plant engineer, and Jerome B. Harrison, president, both of C. A. Durr Packing Co., Utica.
11. R. E. Miller and S. M. Miner, industrial sales manager, Chicago office, York Corp.
12. Pendleton Dudley, director, eastern office, AMI, New York, and Charles W. Reynolds, *The National Provisioner*.
13. Mrs. John Roberts, Willibald Schaefer, president, Willibald Schaefer Co., St. Louis, and Mrs. Schaefer.





Not a hole in a sole. Camera catches moles' eye view of spectators, birds' eye view of speakers, both hard at work in one of AMI's interesting panel discussions.

of the public attention recently. These have been the major problems—those of heaviest volume and greatest impact.

You people in the processing industry, of course, are interested in all meat animals. You handle hogs and sheep, and a large volume of your total beef output comes from dairy herds.

Hog producers are currently in better shape than producers of beef animals. Hog prices are expected to continue above those of a year ago during the fall and winter. We can expect a seasonal decline this fall, but hog slaughter this fall and winter will be considerably below last year. This fact strengthens the price outlook for both hogs and cattle.

The fat and lard question continues to be a pressing one in hog production and marketing. We in the Department of Agriculture, in cooperation with the agricultural colleges and livestock and general farm organizations, are attacking this problem on several fronts.

In our research activities, we have sought to develop breeds of hogs which will produce more lean pork cuts and smaller proportions of lard, for which there is less demand.

In the marketing field, our specialists have developed new grades for market hogs. These are available as a guide for market agencies and others to use in determining the true value of hogs on the basis of their ultimate production of lean and fat pork cuts.

These grades are for use on a voluntary basis, as they should be. The real job of solving this problem will come from the combined efforts of all elements of the livestock industry, with the appropriate guidance and assistance from the government.

This is another illustration of the vital place of research and related work in building toward the soundest possible agricultural economy.

And closely akin to research for better methods and new outlets is the need to do a better job of selling and marketing agricultural products. Meat packers, in co-operation with other branches of the livestock industry, have in recent years done splendid work in explaining to the public the nutritional qualities and values of meat. We need more of this type of educational and marketing work.

What about the future? Where are we going from here?

As long as I am secretary of agriculture, I pledge to you and to the livestock producers throughout the country

that I will at all times attempt to assess your problems in the light of facts rather than prejudices. All problems will get thorough study.

The public interest, rather than political or other interests, will at all times be my guide. There will be no attempt to develop whipping boys for the sake of clouding issues.

I shall attempt at all times to apply the rules of common sense to the problems of agriculture. We will keep our feet on the ground, and not let either panic betray us or politics confuse us.

There is a great deal of work to be done. There are many decisions to be made—decisions which will be vital to agriculture and in fact to the entire national economy. And in making these decisions we must be governed by what will bring the most good to the most people—now and in the future. That is the only guide I recognize in my job.

In the dynamic economy we are welding in this nation, the meat industry has a big and expanding part to play. We want and need your continued cooperation—in increasing the efficiency of processing and distribution—in research for new markets and new products—in promotion and advertising of meat and its products to the public.

Reaching the goal of increased efficiency and wider distribution will require the joint efforts of all sections of the "Meat Team". We in the Department of Agriculture want to work with that team in our supporting and service capacities.

We will help the livestock industry to help itself—from farm to dinner table, and in every way which is constructive.

The future looks good—both for the country as a whole and for the livestock industry. There are serious problems now. There will be more in the future. But as long as we avoid dangerous expedients and stick to the sound American principles of free enterprise, we can solve them.

As President Dwight D. Eisenhower said at Omaha last fall, "For the security of our farms and the nation we must get our entire economy on a sound basis." And he added, "We can meet the future and build a security, a prosperity, that will make our past seem puny by comparison."

With the help of God, and with the public interest always as our guide, we will work together in building higher levels of national strength than we have ever known before.

• • •

Edward F. Wilson, chairman of the board, Wilson & Co. Inc.; Wm. Schluderberg, Chairman of board, Wm. Schluderberg — T. J. Krule Co., Baltimore, and Elmo Roper, public opinion analyst.



See What the G. O. P. Has Done Already



*House Majority Leader
Charles Halleck Sums Up*

**THE NEW REPUBLICAN AD-
MINISTRATION** is saving Amer-
ican lives and American dollars!

Under the leadership of President
Eisenhower we have halted the kill-
ing of Americans in Korea and we
have reduced the cost of federal gov-
ernment operations sharply.

We are building a stronger na-
tional defense while freeing private
citizens and our economic system from unwarranted
government interference.

We have set in motion machinery to restore to the
states and local communities their rightful share of both
authority and responsibility as representative units of
American constitutional government.

We are getting more government back where it belongs
—in the hands of the people.

We have reversed the trend toward bigger and bigger
government in Washington and the inevitable dead end
—socialism or something worse.

We have reversed the headlong rush toward bigger
and bigger federal deficits and have quieted the destruc-
tive fires of inflation.

We have given the country solid proof that with hard
work and a will to really economize, the heavy burden
of government costs can be substantially reduced.

By demonstrating a sense of fiscal responsibility we
have stabilized the value of our money and restored confi-
dence in the dollar's worth.

There is more to be done—much more—and it will
be done.

The job will take time.

No responsible member of the Republican party prom-
ised to solve all the nation's problems in a few months.

No one, to my knowledge, promised miracles.

Moreover, I believe that all reasonable citizens under-
stand and appreciate the tremendous size and complexity
of the task we inherited last January.

I believe all reasonable citizens recognize that the over-
hauling job which needed doing cannot be done over-
night if it is to be done right.

We have been putting first things first.

President Eisenhower has concentrated his efforts in
the field of foreign affairs—giving the situation in Korea
top priority. He has moved swiftly to bring the blood-
letting to a stop without sacrificing American principles
or American honor.

He has moved surely in other areas of world affairs
to firm up our defensive structure. There, too, the program
of the new administration is paying obvious dividends.

We have regained the initiative in the cold war with

Soviet Russia, and we intended to hold that initiative.

The Congress moved rapidly in the first session to
trim the fat from the budget estimates of the previous
administration.

Although we were warned by some very well-known
sources that cuts just couldn't be made, the job has been
done—to the tune of some \$14,000,000,000.

Only by such economies—and let me emphasize this
point—only by such economies and by others now being
made daily by the executive departments, could any
responsible administration give deserved tax relief to
the American people.

Any talk of genuine tax cuts under the spending pro-
posals we found on the books last January was just
double talk.

Any tax reduction granted in the face of continued
heavy federal spending would have resulted in bigger
and bigger deficits and heavier income losses to the tax-
paying public through inflationary pressures on the value
of the dollar.

The excess profits tax will be a thing of the past as
of January 1, 1954.

Individuals will enjoy a 10 per cent reduction in their
personal income tax rates at the same time.

We are going to let the American people keep more
of their earnings—to spend or to save, as they wish—
and we are going to insist that the federal government
take less.

Our program, beyond that, calls for an extensive and
painstaking review of the entire internal revenue code.
That study is now under way.

We recognize that many inequities have resulted from
the hodge-podge development of our federal taxation
system down through the years; we intend to correct
such inequities wherever they are found.

This may well mean the elimination of certain excise
taxes and the reduction of others.

It may also mean a broadening of the base to provide
essential revenues for the maintenance of proper and
reasonable government services and to meet the threat of
external violence.

We are also determined to keep our pledges to Amer-
ican agriculture.

We said we would administer fairly the laws already
on the statute books when the new administration came
into office. This we are doing.

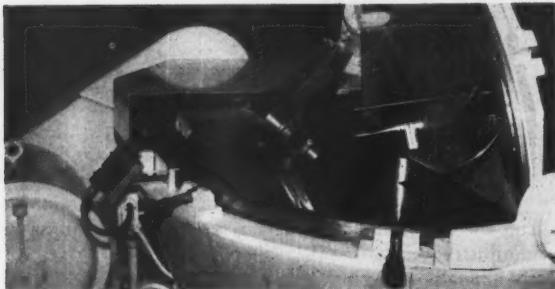
Realizing full well that the national interest demands
a continuing flow of food and fibre, we are dedicated
to the promotion of a healthy and prosperous farm
economy.

To this end we will draft legislation that will meet

(Continued on page 276)

New Equipment Review—

The latest in meat industry machines and supplies taken direct from exhibit floor



NEW CONVERTER for sausage meat emulsification features reversible, double-edge, position-locked knives which are held in place by micro knife collars and positioned by micro screw adjustment. Top plate is removable for easy cleaning. Knives are replaceable as units. Bowl and knife spindle are V-belt mounted. Interlocking safety devices prevent machine from operating if hood or top plate are raised.—John E. Smith's Sons Co., Buffalo.



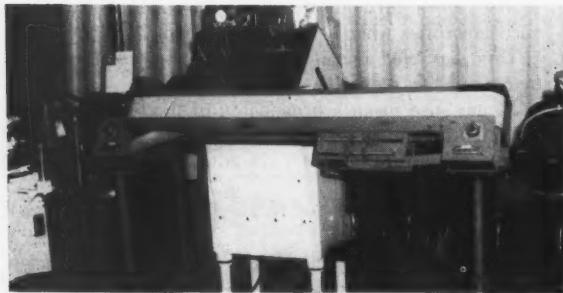
HOG OR SHEEP casings can be cleaned at the rate of 125 per hour with this British made machine. The unit is 18 in. long and is driven by independently mounted motors. The sheep cleaning unit frees the casings of strings by a hand simulated pulling action performed by bar on top of the final crushing-polishing unit. All grease fittings and components of this compact machine are clearly marked.—Koch Supplies, Kansas City, Mo.



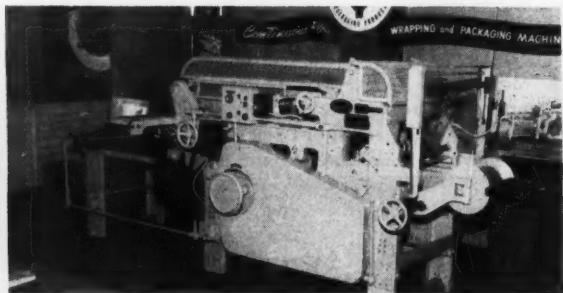
CONVEYOR TYPE sealer can handle frank packages at rates to 30 per minute and bacon packages up to 60 per minute. Packages come to the unit with the bottom seal made and operators stationed along the machine complete other seals. The unit can handle packages in sizes from 1 to 9½ in. wide; 1 to 12 in. long, and up to 5 in. high. Conveyor travels 220 to 660 lineal inches per minute.—Miller Wrapping & Sealing Machine Co., Chicago.



ROLLS OF WRAPPING materials can be cut into any one of 23 predetermined lengths by this machine at the push of a button. Buttons are mounted on control panel at right. When one is pressed, unit will automatically deliver sheets in the size desired. A cancel button stops delivery immediately. The machine, which is said to be fast and jam free, handles rolls up to 23 in. wide. It is made by Lectromatic Devices, Inc., Chicago.

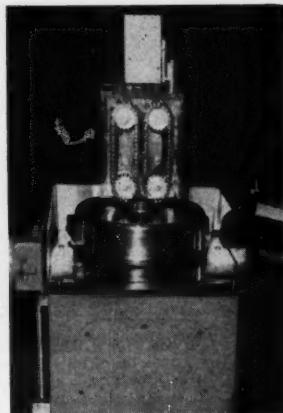


TWO SEALER JAW UNITS pull vacuum and heat seal bag type packages at rates up to 36 per minute. Thermostatic controls keep sealing temperatures constant for various materials and unit pulls 28 to 30 lbs. vacuum. One operator feeds both heads, feeding one while the other seals. Bags are removed by conveyor. A safety device prevents the sealing heads from closing before operators' hand is removed.—Standard Packaging Corp., New York City.



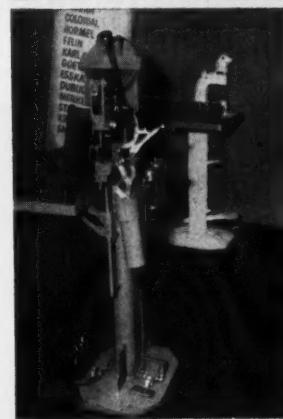
DESIGNED FOR WRAPPING sliced bacon, this machine features tension wrap which rolls out excess air prior to sealing. Double side sealing makes for a stronger, neater package. Unit will seal up to 50 packages per minute, in sizes from 9 to 14 in. long; 8½ to 5 in. wide, and to 1 in. high. Change can be made from sealing ½ to 1 lb. packages in 30 seconds.—Battle Creek Wrapping Machine Co., Battle Creek, Mich.

NEW TWIST LINKING machine links up to 500 lbs. per hour of product stuffed in cellulose type casings. The stuffed strand is fed through opening at top, carried by link forming conveyor into spinning drum and, at end of twisting cycle, is deposited onto table from which links are placed on stick held in position by special frame. Parts of unit contacting product are made of stainless steel.—Kartridg-Pak Machine Co., Chicago.



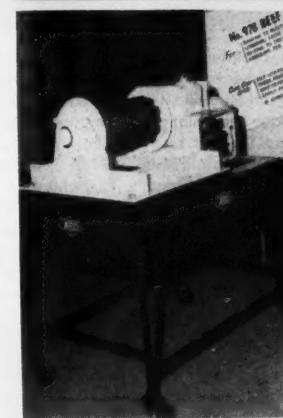
TWO-IN-ONE BAG speeds the wrapping of carcass beef or small stock. Composed of an odorless kraft paper, to which a stockinette has been laminated, the new product permits the wrapping of fresh beef quarters or cuts in one operation. Top of the bag has tying ribbon which pulls the entire bag in snug to the meat. Product is made by Arkell Safety Bag Co., New York City.

THIS UNIT PRESSURE packs product stuffed into fibrous casings and crimp seals for the second tie. Air operated, the machine is compact and easy to handle. Product is placed in position, the neck of the casing gripped with a hand gripper and pressure applied against product by face plate which is slotted to receive casing neck. When packed to desired pressure, a metal crimp makes the seal. —Hercules Fasteners, Inc., Newark, N.J.



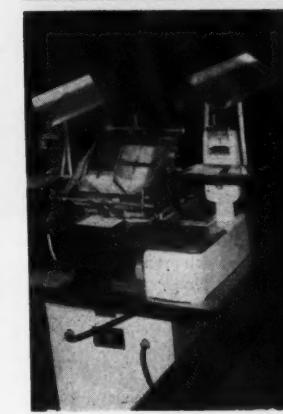
KNIVES ARE ARRANGED on this new silent cutter in order of work load, the first knives having the largest clearance between the cutting edge and bottom of the bowl. A self-raising lid uncovers the entire bowl, facilitating cleanup. Separate motors power the bowl and the knife spindle. The bowl motor and gear reducer are located under the bowl, which has a fast, independent side unloader.—The Globe Co., Chicago.

BEEF HOIST has cone gear drive which provides larger teeth contact, resulting in longer life and smoother operation. The 5-hp. motor will pick up a 2,000 lb. load in the middle of its lift. It drives through V-belts to one end of a worm shaft and lifts at a rate of 90 ft. per minute. Its standard electric motor can be changed independently of the solenoid brake.—The Allbright-Nell Co., Chicago.



TRUCK REFRIGERATOR features easy installation, counterflow cooling coils, on-off operation and hot gas defrosting. The gas engine for road operation is a single cylinder, four-cycle vertical type rated at 8.3 hp. For loading dock operations, the unit has a 3-hp. electric motor. Unit is equipped with a two-cylinder compressor and finned tube type condenser. At ambient temperature of 100°F. and truck temperature of 30, unit is rated at 11,500 Btu/hr.—U. S. Thermo Control Co.

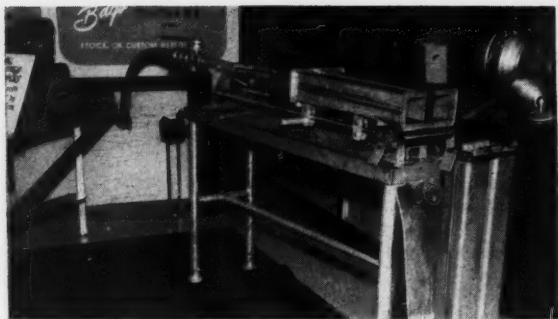
CONVEYOR SEALER has attachments which feed label as diaper wrap unit passes under sealing roller. The label is properly centered on face of package by unit which dispenses one label at a time. On the discharge end the unit is equipped with an automatic coder which dates and codes packages with desired information. —Great Lakes Stamp & Mfg. Co., Chicago.



LOAF PRODUCTS are sealed in Saran with this unit. Roll is pulled to desired length, pressed down against heated wire which cuts the film. The sheet is placed on the table and centered with the aid of positioning lines. Loaf is placed on the sheet, tucked and rolled onto constant temperature sealing plates which seal bottom and sides. Properties of the film cause it to shrink tightly to product. Production rates about 15 a minute.—Miller & Miller Inc., Atlanta, Ga.



A NEW INGREDIENT composed of phosphates is said to give sausage emulsions a smoother texture and bind meat fats more effectively. Evidence of the albuminous qualities of the ingredient are demonstrated in photo by the visual coagulation of the phosphates which had been dissolved earlier in a measuring cup. The phosphates are said to increase the pH of product to the same degree found in freshly killed meats.—Griffith Laboratories, Inc.



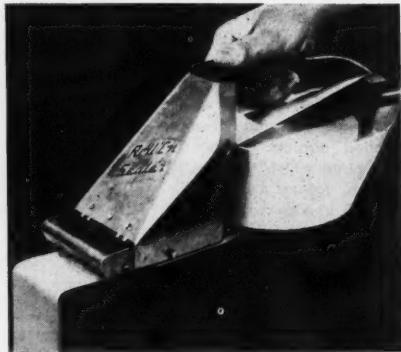
THIS NEW UNIT stuffs out two loaf molds simultaneously. As they travel on a roller type frame, the operator need not hold them. When the stuff is ended, the operator glides the molds over an end roller and onto the apron base of the unit. Here the mold is in an ideal position for hand pressing and locking of the ratchet. The maker claims a four-fold increase of productivity with this equipment.—Meat Packers Equipment Co., Oakland, Calif.



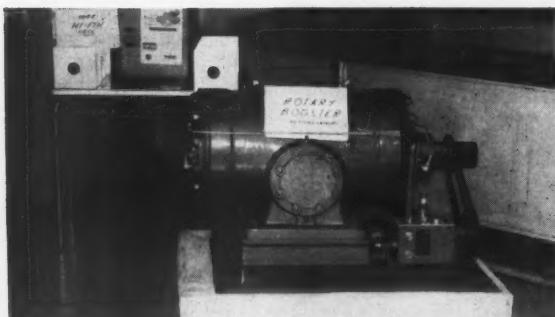
SMALL, COMPACT unit performs the second tie on sausage right at the stuffing table. It has a magazine roll-type feed which contains approximately 10,000 closures. The closures are made of plastic lined metal to prevent cutting of the cellulose casing. It is said that the unit can tie as rapidly as any two stuffing crews can feed product.—Unite-It Fasteners, Summit, N.J.



A NEW SEASONING containing food grain phosphates and feed acidulants solubilizes the calcium therein and the meat, permitting sausage emulsion to hold more moisture and fat and to be chopped smoother. It converts albumin into a solid, thereby increasing binding qualities of the meat. It also is said to free large amounts of hemoglobin resulting in better color and faster smoke time.—First Spice Mixing Co., Inc., New York City.



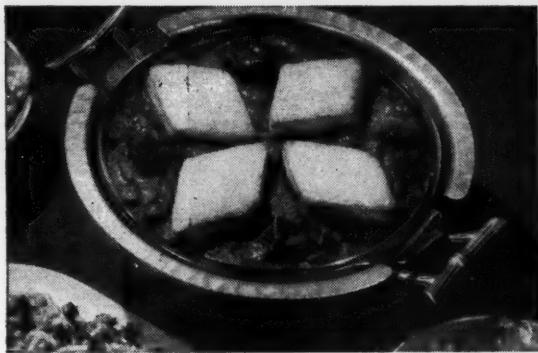
NEW, LIGHTWEIGHT (2½ lbs.) sealer permits an operator to measure, moisten, apply and cut tape on just about any shipping container in one operation. The unit is adjustable for tape up to 3 in. The portable sealer can be used anywhere in a plant. It holds an entire roll of tape and enough water to apply it without refilling. Water is fed into a rotating moistening roll and tape wetted to the right tackiness for maximum adhesion.—E. G. James Co.



NEW ROTARY BOOSTER features compactness and maximum refrigeration production for space required. At 0° suction pressure, 25° intermediate pressure, the unit is rated at 65 tons. It can be used as the first stage in two-stage compression or as a booster unit. It does not require heavy footings and will not vibrate, according to the maker. Lubrication is the forced feed type. Unit is powered by V-belt or direct drive.—York Corp., York, Pa.



COMBINATION rump bone saw and carcass splitter features splash-proof motor, one piece frame, pressure greasing and easy saw blade replacement. The splitter is operated by a micro switch located at top of the hob grip handle. When suspended from an overhead, spring loaded cable, this heavy-duty saw has excellent balance for easy operation.—Best & Donovan, Chicago.



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For your canned beef stew, take a tip from the leaders. Many famous brands of beef stew are made with Huron MSG to give them a rich, "real beef" flavor. Boost your sales too with this same wholesome natural product. Our Technical Service Department will be glad to help you solve your particular flavor problems. Write today. The Huron Milling Co., 9 Park Place, New York City 7.

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SERVICE and
SAVINGS 



Knit from finest yarn, produced in our mill in Dallas — EBSO KING COTT'N Stockinettes are stocked in standard sizes for immediate shipment . . . can be cut and sewn to size for

BEEF FORES HINDQUARTERS
CHUCKS ROUNDS RIBS and LOINS
VEAL SHEEP LAMBS
HAM BAGS and POULTRY BAGS

Beef Tubing and Ham Tubing of standard weight, packed into rolls for cutting to desired size by the processor.



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IMMEDIATE ATTENTION AND
ARE FILLED PROMPTLY!

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Dallas, Texas

MEAT PACKERS' AND SAUSAGE MANUFACTURERS'
SUPPLIES AND EQUIPMENT



These 3 little pigs will go to market

... and there won't be any crying at home if you use Taylor Temperature Control on your ham boilers. Here's what Taylor Temperature Control gives you:

1. Lower Operating Costs—minimum steam consumption and substantially reduced operator attention time.

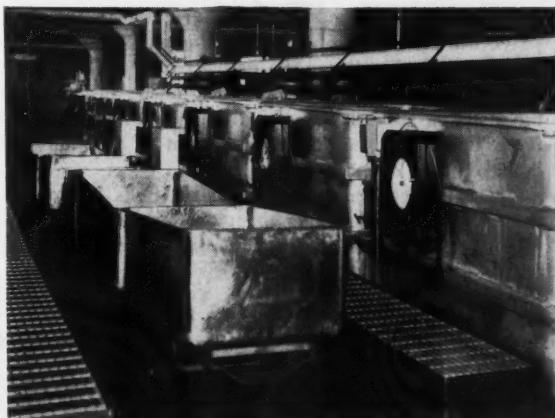
2. Minimum Shrinkage—processing temperature is automatically held to exact requirements.

3. Product Uniformity—appetizing color, desirable moisture content, and excellent stability in every ham you boil, because every ham is boiled at the same temperature.

4. Accurate Chart Records showing the exact time and temperature of the boiling of each batch. The picture below shows a few of the 50 new Taylor-controlled boilers of a large western packer.

Ask your Taylor Field Engineer for complete details on this and other cost-cutting Taylor instruments. Write for **Meat Packing Catalog, 500MP**. Taylor Instrument Companies, Rochester, N. Y., and Toronto, Canada.

TAYLOR INSTRUMENTS MEAN ACCURACY FIRST



(Continued from page 271)

fully the needs of our dynamic and expanding agricultural community.

We will operate on the promise that the farmer wants to be—and deserves to be—considered a free partner in the vast and intricate field of American enterprise. We do not intend to reduce the American farmer to the status of a government ward.

We recognize, moreover, the need for a healthy foreign trade with friendly nations, but we refuse to believe that expansion of such trade can be achieved only at the sacrifice of other vital segments of our total economy.

In the field of labor-management relations, the Republican party has always held that excessive government interference is the road to slavery for both employer and employee.

To support this basic principle and to promote fair play we have consistently advocated certain changes in the Labor-Management Relations Act of 1947. This law, known as the Taft-Hartley Act, was passed by the Republican eighty-first Congress.

It is basically a sound and a just law, but no statute designed to cover all situations in such a complex area as labor-management relations could be perfect. I know of no perfect man-made law. We intend to correct inequities in the Taft-Hartley law. In moving to correct these inequities we are not going to be influenced by threats or intimidations from any source. Decisions on this issue will be made on one basis: the general interests and welfare of the country as a whole. We are not going to wreck the fundamental principles on which the law was drafted.

I happen to believe that the Taft-Hartley Act has never been given a fair chance to operate.

It came into being under an unfriendly—even antagonistic administration. It has been abused as a political scapegoat by people who didn't want the Taft-Hartley Act to work.

Given a fair chance, as I am confident it will be under the administration of President Eisenhower, I have no doubt that the act will provide honorable and just protection for the rights of management, of labor and, may I emphasize, the rights of the American public—which is what any such statute must do.

We have begun the process of getting the government out of competition with private enterprise wherever private enterprise shows willingness and ability to take over functions or projects properly within its field of operation. We will continue to encourage that process.

We will continue to foster the principle of self-government, and to discourage the destructive philosophy that Washington paternalism—big government over all—is the panacea for all our ills, from petty neighborhood fence line squabbles to the settlement of international boundary line disputes.

We have declared open season on Reds in government and we are ferreting them out of the federal employment fields. The nation can rest assured that there



Adolph G. Ackermann, jr., vice president, and Robert Oldham, office manager, Kerber Packing Co., Elgin, Ill., with Karl Ehmer, president, Karl Ehmer, Inc., New York, and Mrs. Ehmer.

will be no closed season—no protective cover—for pinks and fellow travellers under this administration.

The situation in Washington today boils down to this: There is a new set of managers in office.

These managers believe whole-heartedly in the American system under which this country has grown great down through the years.

It does not believe in pitting class against class or group against group for political gain.

These managers believe in the fundamental dignity of the individual. They believe in government by law instead of by men.

They believe whole-heartedly in the American system—the total system—under which this country has grown great down through the years. They are determined to preserve and strengthen this system as the last, best hope of free men everywhere. You people here today know what I am talking about. You have a chance now to help us get the job done. To be blunt about it—unless we have your understanding and cooperation the job isn't going to be done.

Why?

Because you are America and the government is but a reflection of the kind of country you want.

I believe the principles I have talked about here today are your principles. I know you believe in the dynamic force of private initiative.

I don't think you believe that we are better off under a government that hangs over your shoulder with one hand on your neck and the other in your pocket.

I am confident that as we move toward this restoration of more personal liberty for everyone you will join—let me say are joining—with us.

We are, after all, working toward a common goal: greater freedom, greater security and greater abundance for every citizen worthy of the name "AMERICAN."

Thus endeth the convention.



Cattlemen's Views Sought On Price Support Demand

Secretary of Agriculture Ezra Taft Benson informed the House Agriculture committee this week that he is asking 22 livestock organizations to comment on the committee's demand for price supports on cattle. However, he listed several "practical problems" that recently caused his livestock advisory groups to reject previous proposals for supports by some cattlemen.

The House Agriculture committee formally asked Benson last week to take immediate price support action until December 31, 1954, on the price of slaughter cattle grading U.S. Choice and to expand the present low grade beef purchase program.

In a telegram to committee Chairman Hope (R., Kan.), Benson said that price supports on beef might cause the same trouble the government ran into trying to support potatoes and other perishable commodities. He said that the program could not be terminated easily, that it would demand compulsory grading and that the cost "might be very great." The secretary pointed out that the USDA would have to establish price differentials for live cattle according to grades and classes and that seasonal price schedules would have to be worked out to prevent gluts and shortages.

Benson said the government beef

Credit Lower Shrink and Drip Loss to Faster Chill

In a current issue of *Refrigeration Abstracts*, mention is made of the trend to chill smoked meats rapidly. In conventional chill rooms smoked hams arrive at about 130° F. and bacon at 90° F. Product is chilled to 50-55° F. in 24 hours and then held in the same room (temperature 45 to 50°) until wrapped and shipped.

In the rapid chill technique, which is said to lower drip losses and reduce shrinkage, pre-chill rooms are maintained at 26-28° F. with 70 per cent relative humidity and air velocity up to 500 fpm. Ready-to-eat hams enter the pre-chill room at 150° and are pulled down to 45° in eight hours.

Derined bacon slabs enter at 125° and are chilled to 26° in 24 hours. Following the faster chill, product is moved to conventional holding rooms to await further handling.

purchase program is being increased "at every opportunity" and that beef contracts to date total 143,000,000 lbs. He explained that the impact of the program has not been felt because only 44,000,000 lbs. of the total has been delivered.

He informed the committee that beef consumption this year will be about 75 lbs. per capita, the highest on record.

Weeks Calls Competition Key to Business Outlook

Commerce Secretary Sinclair Weeks has advised businessmen to take a more realistic view of current business adjustments and also of "the fundamental strength of our overall economy." He called competition "one way to confound the loose-tongue pessimist" on the business outlook.

Weeks said he plans to sign an order very soon launching the department's projected Business and Defense Services Administration which, in addition to being an organization to assist business, would "transmit business opinion to the government." The new agency will absorb the remaining functions of the National Production Authority, which will go out of business.

Tennessee May Collect Truck Excess Gas Tax

Tennessee State Finance and Taxation Commissioner Z. D. Atkins announced he had asked the state attorney general's office for a ruling as to whether he can require out-of-state trucks to pay gasoline taxes if they have more than 18 gallons.

Atkins said no attempt ever had been made to enforce the present law, adopted in 1939, which makes it a misdemeanor for a truck to enter the state with more than 18 gallons of gasoline.



Kentmaster model "151" for use where beef splitting is a continuous operation.



Kentmaster model "75" for the small packer, slaughterer or locker plant.

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Please send me copy of your new Brochure on the installation and operation of Carcass Cutting Saws.

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Books . . . every meat plant should own

MEAT SLAUGHTERING AND PROCESSING

Contains information helpful to small slaughterer or locker plant operator interested in killing and meat processing. Discusses: fundamentals; plant location and construction; beef slaughter and by-products; hog slaughter; inedible rendering; canning processing; lard rendering; track installations; curing; smoking and sausage manufacture. Sketches, tables and illustrations.

Price \$5.

ACCOUNTING FOR A MEAT PACKING BUSINESS

This book is designed primarily for smaller firms which have not developed multiple departmental divisions but are interested in fundamental cost accounting. The book discusses uses of accounting in management, cost figuring, accounting for sales and numerous other subjects. Published by the Institute of Meat Packing.

Price \$4.50

MEAT PACKING PLANT SUPERINTENDENCY

A general summary of plant operations not covered in Institute books on specific subjects. Topics discussed include plant locations, construction and maintenance, the power plant, refrigeration, insurance, operation controls, personnel controls, incentive plans, time keeping and safety. Published by the Institute of Meat Packing.

Price \$4.50

MEAT AND MEAT FOODS

This new book by L. B. Jensen, chief bacteriologist of Swift & Company, brings together and explains in non-technical language facts about meat processing and preservation gathered by scientific men and practical operators. Published by The Ronald Press Company.

Price \$3.75

McGraw-Hill Books To Help Departmental Operators

Practical reference books will save dollars and hours in the office, plant or shop.

LIVESTOCK MARKETING

Prepared by A. A. Dowell, University of Minnesota, and Knute Bjorka, primarily as a text in livestock marketing for students in agricultural colleges, this book should also be helpful to packers, marketing agencies and others engaged in marketing of livestock and distribution of meat. 534 pages and 104 illustrations. Price \$6.50

AUTOMOTIVE TROUBLE SHOOTING AND MAINTENANCE

This practical book by Anderson Ashburn, associate editor of *American Machinist*, gives detailed procedures for locating and correcting electrical and mechanical troubles in gasoline-powered automobiles and trucks. It is written in simple language, well-illustrated and covers all operating parts of the vehicles. 324 pages. Price \$4.75

BOILER OPERATOR'S GUIDE

A dependable handbook on steam boilers. Covers boilers in use today—their characteristics, installation and operating problems and solutions; problems of firemen and engineers are discussed and solved in detail. Has over 200 photographs and drawings of boilers of all types, auxiliaries, appliances, etc. Valuable reference data and chapters on plant management, inspection and maintenance. 353 pages and 241 illustrations. Price \$5.75

FREEZING PRESERVATION OF FOODS

Covers all frozen pack foods—meat, fish, poultry, fruits and vegetables—with entire chapter devoted to preparation and freezing of meat. Subjects include principles of refrigeration, cold storage, sharp freezers and freezing; changes in food in preparation, freezing, storage and thawing and locker plant operation. Fifty-seven tables and 161 illustrations. 763 pages.

Price \$12.

SAUSAGE AND READY-TO-SERVE MEATS

Covers the manufacture of sausage and other specialties including meat loaves, cooked and baked hams, canned meats. Discusses technical problems of spoilage prevention. Published by the Institute of Meat Packing.

Price \$4.50

MEAT HYGIENE

Dr. A. R. Miller, chief of the MID, presents current meat hygiene practices in this new text. Entire field of environmental sanitation in meat preparation and distribution is covered. Adulteration and mislabeling are discussed and government meat hygiene programs covered. Price \$7.50

MEAT THROUGH THE MICROSCOPE

Science in the meat industry. Discusses chemistry of curing, refrigeration, sanitation, spoilage and chemistry and manufacture of fats, oils, pharmaceuticals, and feeds. Published by the Institute of Meat Packing.

Price \$5.00

PORK OPERATIONS

A technical description of all pork operations from slaughtering through cutting, curing, smoking, and the processing of lard, casings and other by-products. Published by the Institute of Meat Packing.

Price \$4.50

BUSINESS LAW

Second edition of a textbook by R. O. Skar and B. W. Palmer imparting the legal knowledge most frequently applicable in business, personal and social relationships. 478 pages. Price \$5.00

FOOD PLANT SANITATION

Milton Parker of the Illinois Institute of Technology in this handbook provides proved methods for solving problems of food sanitation. It makes available practices that are both safe and in accordance with the law. 434 pages and 129 illustrations. Price \$6.50

PLUMBING

A complete treatment of modern plumbing principles, design and practice. Subjects treated include water supplies, pumps and storage tanks, water supply pipes in buildings, hot water, gas, compressed air and vacuum supplies, vent pipes and traps, sewage and drainage pumps and drains, water treatment and sewage disposal, maintenance and repairs, etc. Price \$6.50

ANNUAL MEAT PACKERS GUIDE

The Provisioner's reference and data book for packers, renderers, sausage and by-product manufacturers. A few copies of the 1950-51 edition available at \$1.50 each. The 1953 edition is \$5.

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The 21st edition of the standard comprehensive reference book on livestock feeding and nutrition by expert Frank B. Morrison. It presents detailed information on nutrition, feeding and care of farm animals, including poultry. Composition, use and nutritive value of all important livestock feeds, and recent discoveries in animal nutrition and livestock feeding are emphasized. Contains over 1200 pages and 200 illustrations. Price \$7.

BY-PRODUCTS OF THE MEAT PACKING INDUSTRY

Revised edition covers rendering of edible animal fats, lard manufacture, making of lard substitutes, inedible tallow and greases, soap, hides and skins and pelts, hair products, glands, gelatin and glue and by-product feeds. Published by the Institute of Meat Packing.

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Beef and small stock operations are described in detail. Among subjects covered are slaughter, dressing and chilling, handling edible specialties and handling hides and other by-products. Published by the Institute of Meat Packing.

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The 376-page magazine format history of the development and progress of the meat packing industry from 1891 to 1951. Over 250,000 words and more than 200 illustrations in features comprising a social and economic "running record" of the industry, reviews of developments in equipment, processes and refrigeration, biographies of the men who built meat packing and several other worthwhile articles. Published by the Provisioner.

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INDUSTRIAL PROCESS CONTROL BY STATISTICAL METHODS

This practical manual by J. D. Heide, analyst for the U. S. Rubber Co., shows how to apply statistical methods to the control of industrial products and processes during manufacture. It is especially valuable as a step-by-step guide for industrial users wishing to install statistical quality control procedures in their plants. Price \$6.50

To order these books, send check or money order to the Book Department, The National Provisioner, 15 W. Huron St., Chicago 10, Illinois. Payment must accompany order. Foreign buyers should add 25 cents per volume for extra postage.

Production Of Meat Up 4% Due To Heavier Slaughter Of All Livestock

MEAT production under federal inspection for the week ended October 10, with livestock slaughterings at an unusually high level for this time of the year, rose to 395,000,000 lbs. for a 3 per cent increase over the 382,000,-

slaughter of hogs increased 9 per cent over the week before and for the second time within about a month, numbered more than in the same week of 1952. Slaughter of sheep and lambs also showed a substantial increase.

ESTIMATED FEDERALLY INSPECTED SLAUGHTER AND MEAT PRODUCTION

Week ended October 10, 1953, with comparisons

	Beef	Veal	Pork	Lamb and Mutton	Total Meat Prod.	
	Number	Prod.	Number	Prod.	Number	Prod.
Oct. 10, 1953	418	211.9	174	23.1	1,148	143.7
Oct. 3, 1953	400	208.0	169	22.5	1,149	136.9
Oct. 11, 1952	292	151.9	135	18.0	147.7	286

AVERAGE WEIGHTS (LBS.)

Week Ended	Cattle		Calves		Hogs		Sheep and Lambs		LARD PROD.	
	Live	Dressed	Live	Dressed	Live	Dressed	Live	Dressed	lbs.	Total mil. lbs.
Oct. 10, 1953	950	507	240	133	222	125	93	43	12.6	32.1
Oct. 3, 1953	955	520	240	133	225	130	92	43	12.0	28.3
Oct. 11, 1952	969	520	250	138	231	131	94	43	13.2	34.4

000 lbs. produced the week before, the U. S. Department of Agriculture has reported. By the same token, total output for the week amounted to 19 per cent more than the 331,000,000 lbs. produced in the corresponding period of last year.

Slaughter of cattle was at a record high for this time of the year and numbered 4 per cent above the previous week and 43 per cent over the kill of the same week of 1952. Calf slaughter numbered the largest since 1947 and

inspected packers killed a total of 418,000 head of cattle compared with 400,000 the preceding week and 292,000 last year. These kills resulted in 211,900,000 lbs. of beef for the week immediately under study against 208,000,000 lbs. the week before and 151,900,000 lbs. a year earlier.

Slaughter of calves numbered 174,000 head for a 5,000 increase over the previous week and 39,000 more than in the same week of last year. Production of veal totaled 23,100,000 lbs. against

LIGHT HOGS APPROACH PLUS MARGIN AS LIVE COSTS DIP

(Chicago costs and credits, first two days of week)

Cutting margins on light hogs worked sharply toward the positive column as live prices dropped appreciably and pork prices in some instances worked higher during the week. Slight gains were registered in margins of the two heavier classes, due much to lower live costs.

This test is computed for illustrative purposes only. Each packer should figure his own test using actual costs, credits, yields and realizations. The values reported here are based on the available Chicago market figures for the first two days of the week.

180-220 lbs. —			220-240 lbs. —			240-270 lbs. —		
Pct.	Price	Value	Pct.	Price	Value	Pct.	Price	Value
Live	per cwt.	per cwt. fin.	Live	per cwt.	per cwt. fin.	Live	per cwt.	per cwt. fin.
wt.	lb.	alive	wt.	lb.	alive	wt.	lb.	alive
Skinned hams	12.6	45.2	\$ 5.70	\$ 8.28	12.6	43.6	\$ 5.49	\$ 7.76
Picnics	5.6	27.0	1.51	2.18	5.5	26.8	1.47	2.09
Boston butts	4.2	36.0	1.51	2.19	4.1	35.6	1.46	2.06
Loins (blade in)	10.1	45.0	4.55	6.58	9.8	44.2	4.33	6.14
Lean cuts			\$13.27	\$19.23		\$12.75	\$18.04	
Bellies, S. P.	11.0	41.8	4.60	6.60	9.5	39.4	3.74	5.32
Bellies, D. S.					2.1	34.0	.71	1.02
Fat backs					3.2	14.0	.45	.63
Jowls	1.7	18.0	.31	.46	1.7	18.0	.31	.46
Raw leaf	2.2	16.7	.37	.53	2.2	16.7	.37	.51
P.S. lard, rend. wt.	14.8	16.3	2.40	3.48	13.3	16.3	2.15	3.05
Fat cuts and lard			\$ 7.68	\$11.07		\$ 7.73	\$10.99	
Spareribs	1.6	39.6	.63	.92	1.6	30.6	.49	.70
Regular trimmings	3.2	19.6	.64	.92	2.9	19.6	.57	.82
Feet, tails, etc.	2.0		.22	.32	2.0		.22	.32
Offal & miscel.			.75	1.10		.75	1.09	
TOTAL YIELD & VALUE	69.0		\$23.19	\$33.56	70.5		\$22.51	\$31.97
							71.0	
Cost of hogs	\$21.70	Per cwt.	\$21.87	Per cwt.	\$21.87	Per cwt.	\$21.87	Per cwt.
Condemnation loss	.12	fin.	.12	fin.	.12	fin.	.12	fin.
Handling and overhead	1.95	yield	1.69	yield	1.55	yield	1.55	yield
TOTAL COST PER CWT.	\$23.77		\$34.45		\$23.68		\$33.59	
TOTAL VALUE	23.19		33.54		22.51		31.97	
Cutting margin	-\$.58		-\$.89		-\$ 1.17		-\$ 1.62	
MARGIN last week	-\$ 1.22		-\$ 1.75		-\$ 1.43		-\$ 1.97	

22,500,000 lbs. the preceding week and 18,600,000 lbs. a year ago.

Hog slaughter, with a good gain, reached 1,148,000 head, the biggest since February and compared with 1,049,000 the week before and 1,130,000 a year earlier. Production of pork amounted to 143,700,000 lbs. against 136,900,000 lbs. the previous week, but with the average weight of the animals less than a year ago, showed a drop from the 147,700,000 lbs. turned out in the same period of 1952. With more hogs killed, lard output reached 32,100,000 lbs. against 28,300,000 lbs. the week before, but as lard output per 100 lbs. of hog was less than a year ago, total output of the product was below the 34,400,000 lbs. produced last year.

Sheep and lamb slaughter numbered 372,000 animals against 341,000 the week before and 289,000 last year, resulting in 16,000,000, 14,700,000 and 12,500,000 lbs. for the three weeks respectively.

Aug. Meat Output 2% Below July; 13% Above Year Ago

Production of meat in commercial plants in the United States during August, 1953 totaled 1,789,000,000 lbs., the Bureau of Agricultural Economics has reported. This was 2 per cent under July output of 1,825,000,000 but 13 per cent more than the 1,582,000,000 lbs. turned out in August, last year.

Output of beef in August amounted to 1,008,000,000 lbs. for a 3 per cent decrease from the 1,036,000,000 lbs. turned out in July, but 27 per cent above the August, 1952 output of 795,000,000 lbs. Output of veal was placed at 143,000,000 lbs. for a 4 per cent increase over July production of 138,000,000 lbs. and 31 per cent more than the 100,000,000 lbs. in August, last year.

Production of pork dropped to the year's low of 582,000,000 lbs., or 3 per cent less than the 597,000,000 in July and 9 per cent less than the 637,000,000 lbs. in August, last year. August lard production totaled 126,000,000 lbs. compared with 140,000,000 lbs. in July, and 155,000,000 lbs. in August, 1952. Lamb and mutton production rose to 56,000,000 lbs. for a 6 per cent increase over the 54,000,000 lbs. in July and 14 per cent above August, 1952 output of 49,000,000 lbs.

AUGUST MEAT GRADING

Meats and meat products graded and certified by the U. S. Department of Agriculture in August, with comparisons ("000" omitted):

	Aug. 1953	July 1953	Aug. 1952
Beef	503,551	507,575	702,906
Veal and calf	33,356	31,717	99,357
Lamb, yearling and mutton	19,200	17,276	50,391
Total	558,197	556,568	912,654
All other meats and lard	28,172	14,271	10,800
Grand total	586,369	570,839	923,514

Note: On February 6, 1953, grading of all meats was restored to a voluntary basis.

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How to analyze foods...
and interpret your findings

Food Analysis

By A. G. WOODMAN

(Mass. Institute of Technology)

Illustrated \$7.00

This book gives you a well-balanced training in methods of food analysis for the detection of adulteration. Typical foods illustrate methods of attack and analysis. Bearing out the author's belief that exercise of judgment and training of sense of discrimination are the principal benefits to be gained from a critical balancing of data obtained in a food analysis, the book gives almost equal emphasis to interpretation of results as to processes. Much information added to this edition on alcoholic beverages, sugar methods for foods affected by admission of dextrose on a par with cane sugar. New permitted dyes, including oil-soluble colors, etc.

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- Mustard
- Vinegar
- Extract of Vanilla
- Lemon Extract
- Extract of Ginger
- Wine
- Whisky

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MEAT and SUPPLIES PRICES

CHICAGO

WHOLESALE FRESH MEATS

CARCASS BEEF

Native steers	Oct. 13, 1953
Prime, 600/800	43 1/2
Choice, 500/700	42 1/2
Choice, 700/800	42 1/2
Good, 700/800	38 @ 36 1/2
Commercial cows	22 @ 22 1/2
Can. & cut.	18 1/2
Bulls	22 @ 22 1/2

STEER BEEF CUTS

Prime:	
1/4 hindquarter	54.0 @ 55.0
1/4 hindquarter	32.0 @ 35.0
Round	45.0 @ 48.0
Trimmed full loin	85.0 @ 88.0
in. C. 3 0	
Foreshank	10.0 @ 18.0
Brisket	33.0 @ 35.0
Rib	55.0 @ 58.0
Short plate	13.0 @ 14.0
Flanks (rough)	13.0 @ 14.0
Choice:	
1/4 hindquarter	49.0 @ 52.0
1/4 hindquarter	31.0 @ 32.0
Round	45.0 @ 48.0
Trimmed full loin	80.0 @ 84.0
in. C. 3 0	
Foreshank	10.0 @ 18.0
Brisket	33.0 @ 35.0
Rib	55.0 @ 58.0
Short plate	13.0 @ 14.0
Flanks (rough)	13.0 @ 14.0
Good:	
in. C. 3 0	
Regular chuck	35.0 @ 37.0
Brisket	33.0 @ 35.0
Rib	40.0 @ 45.0
Loins	65.0 @ 68.0

COW & BULL TENDERLOINS

2/3 range cows	50 @ 55
3/5 range cows	60 @ 65
5/5 range cows	85
Bulls, 5/up	85

BEEF HAM SETS

Knuckles	40
Insides	40
Outsides	36 1/2

BEEF PRODUCTS

Tongues, No. 1	31 @ 34
Hearts	11 @ 11 1/2
Livers, selected	27
Livers, regular	16 1/2
Tripe, sendled	4 1/2 @ 5
Tripe, cooked	5 1/2 @ 6
Lips, scalded	7 1/2
Lips, unscalded	5 1/2
Lungs	4
Melts	4 1/2
Udders	4

FANCY MEATS

(l.c.l. prices)	
Beef tongues, corned	34 @ 36
Veal breads, under 12 oz.	45 @ 50
12 oz. up	70 @ 80
Calf tongues, 1/down	20 @ 22
Calf tongues, 1/4	21 @ 22
Ox tails under 3/4 lb.	8 @ 9
Over 3/4 lb.	12 1/2

WHOLESALE SMOKED MEATS

Hams, skinned, 14/10 lbs., wrapped	49 @ 53
Hams, skinned, 14/10 lbs., ready-to-eat, wrapped	52 @ 55
Hams, skinned, 16/18 lbs., wrapped	50 @ 54
Hams, skinned, 16/18 lbs., ready-to-eat, wrapped	53 @ 57
Bacon, fancy trimmed, brined off, 8/10 lbs., wrapped	60 @ 62
Bacon, fancy square cut, seedless, 12 1/4 lbs., wrapped	53 @ 55
Bacon, No. 1, sliced, 1-lb. open-faced layers	65 @ 70

VEAL—SKIN OFF

Carcass	(l.c.l. prices)
Prime, 80/110	\$40.00 @ 42.00
Prime, 110/150	38.00 @ 39.00
Choice, 80/110	34.00 @ 36.00
Choice, 110/150	32.00 @ 34.00
Good, 80/110	25.00 @ 27.00
Good, 80/110	20.00 @ 24.00
Good, 110/150	28.00 @ 32.00
Commercial, all wts.	20.00 @ 25.00

CARCASS MUTTON

(l.c.l. prices)	
70/down	None quoted
Good, 70/down	None quoted
Utility, 70/down	None quoted

CARCASS LAMBS

(l.c.l. prices)	
Prime, 40/50	\$40.00 @ 42.00
Choice, 40/50	39.00 @ 42.00
Good, 50/60	38.00 @ 42.00
Good, all weights	35.00 @ 38.00

SAUSAGE MATERIALS— FRESH

Pork trim., reg. 40%, bbls.	24
Pork trim., guar. 50% lean, bbls.	25
Pork trim., 90% lean, bbls.	43
Pork trim., 95% lean, bbls.	52
Pork cheek meat, trimd., bbls.	35
Bull meat, bon's, bbls.	31 @ 31 1/2
C.C. cow meat, bbls.	29 1/2
Beef trimmings, 75/85%, bbls.	21
Bon's chuck, bbls.	30 1/2 @ 31
Beef cheek meat, trimd., bbls.	21
Beef head meat, bbls.	19
Shank meat, bbls.	32 1/2 @ 33
Veal trim., bon's, bbls.	23 @ 24

FRESH PORK AND PORK PRODUCTS

(l.c.l. prices)	
Hams, skinned, 10/14	.45 @ 48
Hams, skinned, 14/16	.45 @ 48
Pork loins, regular	
12/down, 100 lbs.	.48 @ 49
Pork loin, boneless, 100's	.68
Shoulders, skinless, bone-in, 100 lbs., 100's	.34
Picnics, 4/6 lbs., loose	.29
Picnics, 6/8 lbs., loose	.28 1/2
Boston butts, 4/8 lbs.	.38 @ 39
Neck bones, bbls.	.18 @ 14
Liver, bbls.	.19 @ 20 1/2
Brains, 10's	.10
Ears, 30's	.13
Snouts, lean in, 100's	.13
Feet, s.c., 30's	.74 @ 8

SAUSAGE CASINGS

(l.c.l. prices quoted to manufacturers of sausage)

Domestic rounds, 1 1/2 in.	50 @ 65
Domestic rounds, over 1 1/2 in., 140 pack	.85 @ 1.10
Export rounds, wide, over 1 1/2 in.	.15 @ 1.75
Export rounds, medium, 1 1/2 @ 1 1/4 in.	.80 @ 1.00
Export rounds, narrow, 1 1/2 in. under	.10 @ 1.30
No. 1 weaners, in. up	12 @ 15
No. 1 weas., 22 in. up	9 @ 12
No. 2 weaners	7 @ 9
Middles, sew., 1 1/2 in. 2/ in.	.95 @ 1.20
Middles, select, wide, 2 1/2 in.	.15 @ 1.75
Middles, extra select, 2 1/2 in.	.20 @ 2.50
Middles, extra select, 2 1/2 in. up	.27 @ 3.25
Beef bungs, exp., No. 1	21 @ 26
Beef bungs, domestic	15 @ 23
Dried or salt, bladders, piece:	
8-10 in. wide, flat	5 @ 9
10-12 in. wide, flat	8 @ 12
12-15 in. wide, flat	18 @ 22
Pork casings:	
Extra narrow, 20 mm. & dn.	3.95 @ 4.25
Narrow, medium, 29/32 mm.	3.90 @ 4.10
Medium, 32/35 mm.	2.75 @ 3.10
Spec. med., 35/38 mm.	1.85 @ 2.10
Export bungs, 34 in. cut	.35 @ 42
Large prime bungs, 34 in. cut	.26 @ 34
Medium prime bungs,	
34 in. cut	.20 @ 23
34 in. cut	.20 @ 23
Small prime bungs	
12 @ 16	
Middles, per set, cap. off.	.50 @ 60
Small cas., per hank:	
26/29 mm.	3.65 @ 4.00
24/26 mm.	4.00 @ 4.20
22/24 mm.	3.00 @ 4.00
20/22 mm.	3.00 @ 3.25
18/20 mm.	1.85 @ 2.00
16/18 mm.	1.10 @ 1.25

DRY SAUSAGE

(l.c.l. prices)	
Cervelat, ch. hog bungs	.94 @ 1.00
Thuringer	.8 @ 1.00
Farmer	.74 @ 82
Holsteiner	.75 @ 82
B. C. Salami	.81 @ 88
Genoa style salami, ch.	.95 @ 1.00
Pepperoni	.73 @ 76

DOMESTIC SAUSAGE

	(l.c.l. prices)
Pork sausage, hog casings.	42%
Pork sausage, sheep cas.	50% @ 51
Frankfurters, sheep cas.	50
Frankfurters, skinless	41 @ 41%
Bologna (ring)	38% @ 45
Bologna, artificial cas.	35 @ 37%
Smoked liver, hog bungs	45% @ 50
New Eng. lunch. spec.	67 @ 68%
Sausage	30%
Polish sausage, smoked	46 @ 65
Pickle & Pimento loaf	36 @ 44%
Olive loaf	36 @ 47%
Pepper loaf	44 @ 57%
Smokie snacks	54%
Smokie links	62%

SPICES

	Whole	Ground
(Basin Chgo., orig. bbls., bags, bales)		
Alspice, prime	39	43
Resifted	41	45
Chilli Powder	47	47
Chilli Pepper	47	47
Cloves, Zanzibar	1.52	1.62
Ginger, Jun., unbl.	20	28
Ginger, African	17	26
Mace, fancy, Banda West Indies	1.35	1.35
West Indies	1.31	1.31
Mustard flour, fancy	37	37
Naartjie	33	33
West India Nutmeg	44	44
Paprika, Spanish	54	54
Pepper, Ceyenne	54	54
Red, No. 1	53	53
Pepper, Packers	1.39	1.84
Pepper, white	1.44	1.53
Malibar	1.39	1.51
Black Lampung	1.39	1.51

PACIFIC COAST WHOLESALE MEAT PRICES

	Los Angeles Oct. 13	San Francisco Oct. 13	No. Portland Oct. 13
FRESH BEEF (Carcass)			
STEER:			
Chloee:			
500-600 lbs.	\$39.00 @ 41.00	\$41.00 @ 42.00	\$42.00 @ 45.00
600-700 lbs.	38.00 @ 39.00	40.00 @ 41.00	41.00 @ 44.50
Good:			
500-600 lbs.	32.00 @ 36.00	36.00 @ 37.00	37.00 @ 42.00
600-700 lbs.	31.00 @ 34.00	34.00 @ 36.00	36.00 @ 42.00
Commercial:			
350-500 lbs.	28.00 @ 31.00	32.00 @ 34.00	27.00 @ 38.00
COW:			
Commercial, all wts.	22.00 @ 24.00	23.00 @ 26.00	22.00 @ 27.00
Utility, all wts.	20.00 @ 23.00	20.00 @ 23.00	21.00 @ 25.00
FRESH CALF:			
Chloee:	(Skin-Off)	(Skin-Off)	(Skin-Off)
200 lbs. down	31.00 @ 34.00	34.00 @ 36.00	32.00 @ 36.00
Good:			
200 lbs. down	30.00 @ 33.00	30.00 @ 34.00	30.00 @ 35.00
FRESH LAMB (Carcass):			
Prime:			
40-50 lbs.	39.00 @ 41.00	39.00 @ 40.00	38.00 @ 38.00
50-60 lbs.	38.00 @ 40.00	37.00 @ 39.00	36.00 @ 38.00
Chloee:			
40-50 lbs.	39.00 @ 41.00	39.00 @ 40.00	36.00 @ 38.00
50-60 lbs.	38.00 @ 40.00	37.00 @ 39.00	36.00 @ 38.00
Good, all wts.	36.00 @ 40.00	34.00 @ 38.00	32.00 @ 36.00
MUTTON (EWE):			
Choice, 70 lbs. down	15.00 @ 19.00	None quoted	11.00 @ 16.00
Good, 70 lbs. down	15.00 @ 19.00	None quoted	11.00 @ 16.00
FRESH PORK CARCASSES (Packer Style)			
80-120 lbs.	None quoted	(Shipper Style)	(Shipper Style)
120-163 lbs.	37.00 @ 39.50	40.00 @ 41.00	38.00 @ 40.00
LOINS			
8-10 lbs.	49.00 @ 53.00	52.00 @ 55.00	51.00 @ 55.00
10-12 lbs.	49.00 @ 53.00	51.00 @ 55.00	51.00 @ 55.00
12-15 lbs.	49.00 @ 53.00	50.00 @ 52.00	51.00 @ 54.00
FRESH PORK CUTS No. 1:			
PICNICS:	(Smoked)	(Smoked)	(Smoked)
4-8 lbs.	39.00 @ 43.00	38.00 @ 42.00	38.00 @ 43.00
PORK CUTS No. 1:	(Smoked)	(Smoked)	(Smoked)
HAMS, Skinned:			
12-16 lbs.	52.00 @ 57.00	58.00 @ 60.00	54.00 @ 58.00
16-18 lbs.	52.00 @ 59.00	63.00 @ 66.00	54.00 @ 58.00
BACON, "Dry Cure" No. 1:			
6-8 lbs.	61.00 @ 72.00	68.00 @ 70.00	60.00 @ 70.00
8-10 lbs.	60.00 @ 65.00	65.00 @ 70.00	59.00 @ 67.00
10-12 lbs.	68.00 @ 62.00	None quoted	58.00 @ 63.00
LARD, Refined:			
1-lb. cartons	22.50 @ 24.50	22.00 @ 24.00	21.00 @ 23.00
50-lb. cartons and cans	21.50 @ 23.50	22.00 @ 24.00	21.00 @ 23.00
Tierces	10.50 @ 23.00	22.00 @ 24.00	19.00 @ 21.00

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SEEDS AND HERBS

	(l.c.l. prices)	Ground Whole for Sausage
Caraway seed	13	20
Cominos seed	22	26
Mustard seed, fancy	23	..
Yellow American	15	..
Oregano	45	52
Corlander, Morocco	..	..
Natural No. 1	13	10
Marjoram, French	35	47
Sage, Dalmatian	..	..
No. 1	24	72

CURING MATERIALS

	Cwt.
Nitrite of soda, in 400-lb. bbls., del. or f.o.b. Chgo.	\$10.00
Salt peter, n. ton, f.o.b. N.Y.:	
Dbl. refined gran.	11.25
8-lb. crystals	14.0
Medium crystals	15.40
Pure rfd., gran. nitrate of soda	5.25
Pure rfd., powdered nitrate of soda	6.25
Salt	..
Salt, in min. car. of 45,000 lbs., only, paper sacked, f.o.b. Chgo.:	
Granulated (ton)	\$23.00
Rock, per ton in 100-lb. bags, f.o.b. warehouse, Chgo.	27.50
Sugar—	
Raw, 96 basis, f.o.b. N.Y. ..	6.45
Refined standard cane gran., basis ..	8.70
Refined standard beet gran., basis ..	8.50
Packers, common sugar, 96-100-lb. bags, f.o.b. Reserve, La., less 2% ..	8.40
Cereleose dextrose, per cwt.	
L.C.L. ex-warehouse, Chgo. ..	7.90
C/L Del. Chgo. ..	7.80

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Trade Marks LELAND and S.T. II Registered U.S. Pat. Off.
S.T. II

"POTENT TO THE LAST GRAIN"

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Now used on food service counters across the nation! Grills evenly on all sides—seals in juices—retains natural flavor—expands size of frankfurter and shows it off to best advantage.

IDEAL FOR SKINLESS TYPES.
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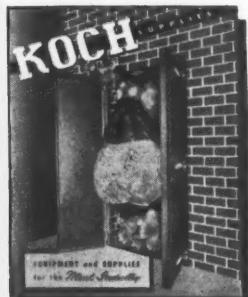


This modern smokehouse was designed by KOCH smokehouse engineers. Equipment includes KOCH insulated smokehouse doors and a KOCH Smoke-Tender Unit (automatic heat-and-smoke generator).

When it's time to build or modernize smokehouses in your plant, take advantage of free KOCH engineering service. Three generations of leadership in the smokehouse industry.

Without charge or obligation, KOCH engineers make detailed preliminary drawings. Complete specifications and price quotation included for equipment recommended. The whole installation is custom planned to fit your individual requirements.

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Phone Victor 3788

CHICAGO PROVISION MARKETS

From The National Provisioner Daily Market Service

CASH PRICES

F.O.B. CHICAGO CHICAGO BASIS		BELLIES (Square Cut)	
WEDNESDAY, OCT. 14, 1953			
	REGULAR HAMS		
Fresh or F.F.A.	Frozen	6- 8	Green
8-10 45% n	45% n	8-10	43 1/2 n
10-12 45% n	45% n	10-12	43 1/2
12-14 42 1/2 n	42 1/2 n	12-14	36 1/2
14-16 42 1/2 n	42 1/2 n	14-16	32 1/2
16-18 41 1/2 n	41 1/2 n	16-18	32 1/2
18-20 41 1/2 n	41 1/2 n	18-20	32 n
20-22 41 1/2 n	41 1/2 n		33 1/2 n

		GR. AMN. BELLIES	D. S. BELLIES

		Clear	Cured
10-12 48 @ 48 1/2	48n	18-20 37 1/2 n	35 1/2 n
12-14 45 @ 45 1/4	45	20-25 37 1/2 n	35 n
14-16 45	45	25-30 36 n	34 n
16-18 44	44	30/35 31 1/2 n	32 a
18-20 44	44	35/40 31 1/2 n	32 a
20-22 44	44	40/50 29 1/2 n	31 a

		FAT BACKS
Fresh or Frozen		Cured
10-12 13 1/2 n		13 1/2 n
8-10 14 n		15
10-12 17 1/2		18
12-14 20 1/2 n		20 1/2
8/up, 2's in 39	39	

		PICNICS
Fresh or F.F.A.	Frozen	
4- 6 29	28 1/2 @ 29n	12-14 20 1/2 n
6- 8 28	28n	14-16 22 n
8-10 27n	27n	16-18 22 n
10-12 27n	27n	18-20 22 n
12-14 27n	27n	20-25 22 n
8/up, 2's in 27n	27b	

		BARRELED PORK
Clear Fat Back		
Pork 60/70		45 n
30/40 49n		70/83 41 1/2 n
40/50 49n		80/100 38 1/2 n
50/60 47 1/2 n		100/125

LARD FUTURES PRICES

FRIDAY, OCT. 9, 1953

Open	High	Low	Close
Oct. 10. 60 65	68.5	68.45	68.55
Nov. 14.35 14.50	14.50	14.40	14.45
Dec. 13.35 13.40	13.40	13.30	13.35
	40		10
Jan. 12.40 12.40	12.40	12.05	12.27 1/2
Mar. 12.15 12.30	12.30	12.15	12.30
May			12.20

Sales: 8,010,000 lbs.
Open interest at close Thurs., Oct. 8: Oct. 176, Nov. 321, Dec. 352, Jan. 172, Mar. 117, and May 6 lots.

MONDAY, OCT. 12, 1953

COLUMBUS DAY

Board of Trade Closed—No Trading in Lard Futures

TUESDAY, OCT. 13, 1953

Oct. 16.97 1/2	16.97 1/2	16.55	16.75a
Nov. 14.50	14.50	14.20	14.27 1/2
			32 1/2
Dec. 13.20	13.27 1/2	13.10	13.27 1/2
	25		
Jan. 12.25	12.40	12.22 1/2	12.40
Mar. 12.35	12.35	12.25	12.30a
May			12.30b

Sales: 3,020,000 lbs.
Open interest at close Friday, Oct. 9: Oct. 176, Nov. 328, Dec. 360, Jan. 175, Mar. 113, and May 6 lots.

WEDNESDAY, OCT. 14, 1953

Oct. 16.85	16.85	16.30	16.55a
Nov. 14.40	14.40	14.05	14.12 1/2a
			32 1/2
Dec. 13.35	13.35	13.10	13.12 1/2a
	25		
Jan. 12.30	12.37 1/2b	12.20	12.20
Mar. 12.10	12.20b	12.10	12.17 1/2a
May			12.30a

Sales: 4,040,000 lbs.
Open interest at close Tues., Oct. 13: Oct. 174, Nov. 342, Dec. 359, Jan. 176, Mar. 113, and May 6 lots.

THURSDAY, OCT. 15, 1953

Oct. 16.35	16.75	16.35	16.67 1/2a
Nov. 14.12 1/2	14.40	14.07 1/2	14.32 1/2a
Dec. 13.02 1/2	13.27 1/2	13.02 1/2	13.25a
Jan. 12.17 1/2	12.40	12.17 1/2	12.35a
Mar. 12.30	12.27a	12.27a	12.27 1/2a
May			12.30b

Sales: 5,250,000 lbs.
Open interest at close Wed., Oct. 14: Oct. 174, Nov. 352, Dec. 362, Jan. 177, Mar. 111, and May 6 lots.

^aasked. ^bbid. ⁿnominal.

CORN-HOG RATIO

The corn-hog ratio for barrows and gilts at Chicago for the week ended Oct. 10, 1953, was 15.0 according to a report by the U. S. Department of Agriculture. This ratio compared with the 15.2 ratio reported for the preceding week and 11.6 recorded for the same week a year ago. These ratios were calculated on the basis of yellow corn selling for \$1.474 per bu. in the week ended Oct. 10, 1953, \$1.614 per bu. in the previous week and \$1.703 per bu. for the same period a year earlier.

PACKERS' WHOLESALE LARD PRICES

Refined lard, tierces, f.o.b.
Chicago \$20.50
Refined lard, 50-lb. cartons,
f.o.b. Chicago 20.50
Kettle rend., tierces, f.o.b.
Chicago 21.00
Leaf, kettle rend., tierces,
f.o.b. Chicago 22.00
Lard flakes 25.00
Neutral tierces, f.o.b. Chicago 25.00
Standard shortening *N. & S. 20.00
Hydrogenated Shortening,
N. & S. 21.75

*Delivered.

WEEK'S LARD PRICES

P.S. Lard	P.S. Lard	Raw Leaf
Tierces	Loose	
Oct. 9 17.25n	16.00b	17.00n
Oct. 10 17.25n	16.00n	17.00n
Oct. 12 17.25n	16.25n	17.25n
Oct. 13 17.50n	16.50n	17.50n
Oct. 14 17.50n	16.50b	17.50n
Oct. 15 17.75n	16.75b	17.75n

WABASH 2-9774

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Make a hard job easy with an M & M Meat Grinder—quickly and efficiently reduces condemned stock, shop fats, bones, and slaughter house offal. Three types and many sizes available. Flywheel equipment, as shown, is optional. All machines can be furnished with structural steel bases. Write for descriptive literature.

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You can quickly stop floorosis; broken cement floors, holes, ruts, large cracks with Cleve-O-Cement. Handles like mortar mix. Any handy man using ordinary tools can apply. Bonds tightly to rough edge of breaks, dries flat hard overnight. Ready for heavy traffic next morning.

Unaffected by most acids, heat, cold, live steam, grease, oil. Special chemical structure, unlike any other patching material. Not an asphalt composition. Developed for damp, wet floors, laundries, bottling plants. Packed in 160#, 300# and 450# steel drums. Just mix with water.

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MARKET PRICES

NEW YORK

WHOLESALE FRESH MEATS CARCASS BEEF

	Oct. 13, 1953	FRESH PORK CUTS
1 per Cwt.		(l.c.i. prices)
Western		Western
Pork loins, 8/12	\$.49.00@\$.52.00	Pork loins, 8/12
12/16	.48.00@\$.51.00	Pork loins, 12/16
Hams, sknd., 14/down	.49.00@\$.52.00	Hams, sknd., 14/down
Boston butts, 4/8 lbs.	.48.00@\$.50.00	Boston butts, 3/down
Spareribs, 3/down	.46.00@\$.48.00	Pork trim., regular
Pork trim., spec. 80%	.39.00	Pork trim., spec. 80%
		49.00
		City
Hams, sknd., 14/down	.48.00@\$.52.00	Hams, sknd., 14/down
Pork loins, 8/12	.52.00@\$.54.00	Pork loins, 8/12
12/16	.52.00@\$.54.00	Pork loins, 12/16
Picnics, 4/8	.33.0 @\$.36.00	Picnics, 4/8
Boston butts, 4/8 lbs.	.45.0 @\$.48.00	Boston butts, 3/down
Spareribs, 3/down	.45.00@\$.49.00	Spareribs, 3/down

BEEF CUTS

	Oct. 13, 1953	CITY
Hindquarters, 600/800	.54.00@.62.00	
Hindquarters, 800/900	.50.00@.52.00	
Rounds, no flank	.50.00@.53.00	
Rounds, Diamond bone,		
no flank	.51.00@.53.00	
Short loins, untrim.	.78.00@.82.00	
Short loins, trim.	.95.00@1.50	
Flanks	.15.00@.16.00	
Ribs (7 bone cut)	.58.00@.62.00	
Arm chuck	.43.00@.45.00	
Briskets	.34.00@.36.00	
Plates	.17.00@.19.00	
Forequarters (Kosher)	.48.00@.50.00	
Arm chuck (Kosher)	.52.00@.54.00	
Briskets (Kosher)	.37.00@.39.00	

Choice:

	Oct. 13, 1953	CITY
Hindquarters, 600/800	.52.0@.60.0	
Hindquarters, 800/900	.49.00@.50.0	
Rounds, no flank	.50.0@.51.0	
Rounds, Diamond bone,		
no flank	.50.0@.52.0	
Short loins, untrim.	.65.00@.76.00	
Short loins, trim.	.82.00@.90.00	
Flanks	.15.0@.16.00	
Ribs (7 bone cut)	.55.00@.57.00	
Arm chuck	.4@.43.00	
Briskets	.3@.35.00	
Plates	.17.00@.19.00	
Forequarters (Kosher)	.43.00@.47.00	
Arm chuck (Kosher)	.46.00@.50.00	
Briskets (Kosher)	.36.00@.38.00	

FANCY MEATS

(l.c.i. prices)

	Cwt.
Venl breads, under 6 oz.	.43.00
6 to 12 oz.	.47.00
12 oz. up	.72.00
Beef kidneys	.12.00
Beef livers, selected	.33.00
Oxtails, over 3 lb.	.12.00

LAMBS

(l.c.i. prices)

	CITY
Prime, 30/40	.42.00@.45.00
Prime, 40/45	.43.00@.46.00
Prime, 45/55	.44.00@.46.00
Choice, 30/40	.40.00@.42.00
Choice, 40/45	.40.00@.42.00
Choice, 45/55	.41.00@.43.00
Good, 20/40	.36.00@.38.00
Good, 40/45	.37.00@.39.00
Good, 45/55	.36.00@.38.00

Western

Prime, 40/50

Prime, 50/60

Prime, 60/70

Choice, all wts.

Good, all wts.

Utility, all wts.

41.00@.44.00

41.00@.44.00

41.00@.44.00

30.00@.42.00

34.00@.38.00

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BY-PRODUCTS....FATS AND OILS

TALLOWS AND GREASES

Wednesday, October 14, 1953

The tallow and grease market this week opened steady and gathered strength as the week progressed.

The latter part of last week, several tanks of all hog choice white grease sold at 10c, c.a.f. East, and a few tanks of good packer production yellow grease traded at 3½c, also c.a.f. East. Several tanks of bleachable fancy tallow sold at 4½c, c.a.f. Chicago. Prime tallow was bid ½c higher, with buying interest for special reported at 4c.

Sellers in the East held offerings fractionally higher than buyer's ideas. In the local area, however, a few tanks of edible tallow sold at 11.50, f.o.b. shipping point. Several additional tanks sold at 11.50, Chicago or Chicago basis and three more tanks of edible tallow sold at 11½c, f.o.b. basis.

Friday, edible tallow continued to trade, and two tanks sold at 11½c, Chicago basis, with later bids at 11c. Other selections of tallow sold steady to fractionally higher in the midwest area. Bleachable fancy tallow sold at 4½c, prime tallow at 4½c, special tallow at 4c, with No. 2 tallow bid at 2½c, Chicago. A few tanks of No. 2 tallow sold at 2½c, c.a.f. East.

Yellow grease sold at 3c, A-white grease at 6c and B-white grease at 4½c, all c.a.f. Chicago. Several tanks of yellow grease sold at 3½c c.a.f. New Orleans. A few tanks of bleachable fancy tallow sold at 5c c.a.f. East. Several tanks each of prime tallow sold at 4½c, special at 4½c, and No. 1 tallow at 4c, all c.a.f. New Orleans.

There was a somewhat stronger feeling in the market on Monday, of this week. A couple of tanks of bleachable fancy tallow sold steady at 4½c, prime tallow at 4½c and special tallow at 4c. Choice white grease was reported to have sold at 10½c in the East. Offerings were generally priced at 11c, however. Yellow grease reportedly sold at 4c to domestic buyers, also East.

BY-PRODUCTS MARKETS

Blood

Wednesday, Oct. 14, 1953

Unground, per unit of ammonia	Unit Ammonia
(bulk)	*6.75@7.00

Digester Feed Tankage Material

Wet rendered, unground, loose,	Low test	*7.75@8.00
High test	*6.50@6.75
Liquid stick tank cars.....	3.50@3.75

Packinghouse Feeds

Carlots, per ton	
50% meat and bone scraps, bagged..... \$85.00@ 90.00	
50% meat and bone scraps, bulk... 80.00@ 87.50	
55% meat scraps, bulk..... 90.0@100.00	
60% digester tankage, bulk..... 85.00@ 90.0	
60% digester tankage, bagged..... 87.50@ 95.00	
80% blood meal, bagged..... 115.00@120.00	
70% standard steamed bone meal, bagged (spec. prep.)	60.00
65% steamed bone meal	55.00@ 60.00

Fertilizer Materials

High grade tankage, ground, per unit ammonia	Unit ammonia
.....	5.75
Hoof meal, per unit ammonia.....	6.00

Dry Rendered Tankage

Per unit Protein	
Low test	*1.55
High test	*1.40

Gelatine and Glue Stocks

Per cwt.	
Calf trimmings (limed)	\$1.50@ 1.75
Hide trimmings (green salted)	*8.00@10.00
Cattle jaws, skulls and knuckles, per ton	55.00
Pig skin scrapes and trimmings, per lb.	65.00
.....	7%

Animal Hair

Per cwt.	
Winter coil dried, per ton..... *115.00@120.00	
Summer coil dried, per ton..... 50.00@ 55.00	
Cattle switches, per piece.....	5½
Winter processed, gray, lb.	14@ 16
Summer processed, gray, lb.	5% 6

.....nominal. n—asked.

*Quoted delivered basis.

The tempo of activity improved Tuesday. Despite higher reported bids, no trading was heard at other than steady levels. Bleachable fancy tallow sold at 4½c, prime at 4½c and special at 4c. A-white grease sold at 6c, B-white at 4½c, and yellow grease was bid at 3½c, without movement. In the Eastern market, bleachable tallow sold at 5½c, and a couple tanks of choice white grease sold at 10½c, c.a.f. East. The market gained strength at mid-

VEGETABLE OILS

Wednesday, October 14, 1953

Activity in the vegetable oils market was very light the beginning of the week, as a result of commodity futures markets being closed in observance of Columbus Day.

Prices for most selections were quoted on a nominal basis, with the exception of November shipment soybean oil which was traded at 12½c. October shipment was bid at 13c, but no trading at that level was reported during opening rounds.

Cottonseed oil in the Valley was quoted at 13½c, as was the case in the Southeast, both on a nominal basis. In Texas, the market was pegged at 13c, also nominal. Corn oil did not trade, but was offered at 13½c and 14c, depending on shipment. Peanut oil held steady at 21c, while coconut oil was offered at 15½c, but did not sell.

Volume of sales did not increase Tuesday, but the sales that were encountered were at higher levels. Spot shipment and October movement sold at 13½c. First-half November and scattered November shipment brought 12½c and December shipment reportedly cashed at 12½c. All sales were accomplished early in the day, as buying interest was withdrawn later in the session.

The cottonseed oil market affected the stronger tone of soybean oil, with sales in the Valley of October-November session.

week, with most activity in the East. A few tanks of choice white grease sold at 11c, yellow grease at 4c to 4½c and additional sales of choice white grease were made at 11c for quick shipment. In the local area, two tanks of bleachable fancy tallow sold at 4½c. Special tallow was bid at 4½c. Yellow grease sold at 3½c Chicago basis, with later movement heard at 3½c, also Chicago basis. Bleachable fancy tallow sold in the East at 5½c, and later bid at 5½c.

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Hides & Tallow CG 1469
Provisions CG 2231

ber shipments first at 13½c and later at 13½c. December shipment also sold at 13½c. Offerings in the Southeast were priced within the narrow range of 13½c to 13½c.

Texas stock sold at 13½c basis Waco, and at 13½c for October and November shipments. Immediate and first-half November shipment corn oil traded higher at 14c. Peanut oil advanced on a nominal basis, and quick shipment was listed at 21½c. Coconut oil was available at 15½c.

Only limited movement of soybean oil was reported again at midweek, with prices declining throughout the day. Very early Wednesday, October-spot shipment sold at 13½c. Later, October shipment brought 13c and still later at 12½c. November shipment cashed at 12½c and December shipment at 12½c. The weakness in the market was attributed to lack of buying interest.

Cottonseed oil sold steady in the Valley at 13½c and 13½c, for October shipment. November coupled with December shipment cashed at 13½c. The market in the Southeast was quoted nominally at 13½c to 13½c. There was buying interest at common points in Texas at 13½c, but no sales were recorded. Corn oil was offered at 14c in the midwest. Peanut oil was unchanged at 21½c, nominal basis, but the offering price of prompt shipment coconut oil declined to 15½c.

CORN OIL: Advanced ¼c in light activity.

SOYBEAN OIL: Market strong early in week, declining as much as ½c at midweek.

PEANUT OIL: Unchanged from the previous week.

COCONUT OIL: Offerings priced fractionally less than last week.

COTTONSEED OIL: Advanced ¼c to ½c, depending on location, during week.

Cottonseed oil prices in New York were quoted as follows:

FRIDAY, OCT. 9, 1953

	Open	High	Low	Close	Prev.
Oct.	15.70b	15.70b	15.68b	15.59b	
Dec.	15.64-65	15.64-65	15.64	15.58b	
Jan.	15.50	15.50	15.48	15.40b	
Mar.	15.45b	15.45b	15.42b	15.33b	
May	15.40	15.40	15.34b	15.34b	
July	14.90b	14.90b	15.04b	14.80b	
Sept.	14.25b	14.25b	14.00b	14.10b	
Sales 30 lots.					

MONDAY, OCT. 12, 1953

COLUMBUS DAY

No Trading in Cottonseed Oil Futures

TUESDAY, OCT. 13, 1953

Oct.	15.85b	10.00	15.99	15.98b	15.85b
Dec.	15.75-82	15.84	15.75	15.80b	15.64
Jan.	15.75b	15.75b	15.75	15.75b	15.60b
Mar.	15.55b	15.65	15.55	15.57b	15.43b
May	15.50	15.50	15.50	15.43b	15.34b
July	15.00b	15.00b	15.00b	15.04b	15.04b
Sept.	14.01b	14.01b	14.00b	14.00b	14.00b
Sales 45 lots.					

WEDNESDAY, OCT. 14, 1953

Oct.	15.90b	15.88	15.81	15.81b	15.98b
Dec.	15.75b	15.75	15.05	15.05	15.80b
Jan.	15.70b	15.70b	15.60b	15.60b	15.75b
Mar.	15.55b	15.55	15.50	15.44b	15.57b
May	15.44b	15.40	15.30	15.30	15.45b
July	15.01b	15.01b	14.90b	15.00b	15.00b
Sept.	14.00b	14.00b	14.00b	14.00b	14.00b
Sales 66 lots.					

New High-Yield Soybean

A new variety of soybean that promises higher yields has recently been announced by the Iowa agricultural experiment station and the U. S. Department of Agriculture. This variety, called Clark, was developed through 12 years of crossing, selecting, testing.

VEGETABLE OILS

Wednesday, Oct. 14, 1953

Crude cottonseed oil, carlots, f.o.b. mills	
Valley	13½@13½pd
Southeast	13½@13½n
Texas	13½n
Corn oil in tanks, f.o.b. mills	14n
Peanut oil, f.o.b. Southern mills	21½n
Soybean oil, Decatur	13pd
Coconut oil, f.o.b. Pacific Coast	15½a
Cottonseed foots,	
Midwest and West Coast	¾n
East	¾n

OLEOMARGARINE

Wednesday, Oct. 14, 1953

White domestic vegetable	26
Yellow quarters	27
Milk churned pastry	26
Water churned pastry	25

OLEO OILS

(F.O.B. Chicago)

Lb.	
Prime oleo stearine (slack barrels)	12
Extra oleo oil (drums)	17

EASTERN BY-PRODUCTS MARKET

New York, Oct. 14, 1953

Dried blood was quoted Wednesday at \$8 nominal per unit of ammonia. Low test wet rendered tankage was priced at \$6, per unit of ammonia and dry rendered tankage was listed at \$1.40 to \$1.45 per protein unit.

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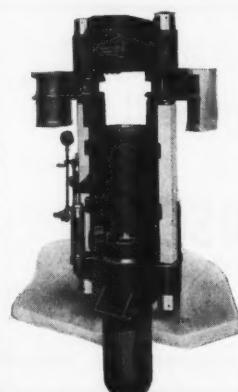
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HIDES AND SKINS

Heavy native steers and cows only selections that sold lower during week—Others sold steady—Small packer hide market stronger on the basis of sales—Calf and kip skin movement lacking—Sheepskin market dull and easier.

CHICAGO

PACKER HIDES: In activity late Friday of last week and continuing into Monday of this week, about 10,000 heavy native cows were traded at 14½c, for northerns, and 14c for River point production. About 2,000 River heavy native steers sold at 14½c. Although these sales represented a ½c to 1c decline from trading levels earlier last week, other selections of hides were bid at steady levels on Monday. Most sources thought a stabilization of prices had been reached and, despite speculative interest in the market, tanner interest has improved.

Prices for selections of hides sold Tuesday, held steady and actual volume was quite large. About 40,000 branded cows sold at 13c and about 10,000 branded steers sold at 12c for butts and 11c for Colorados. Light native cows were also traded and about 11,000 sold at 15½c to 16c, depending on production point. A car of heavy native cows sold early at 14c for Rivers.

Steady prices prevailed again at midweek. Early Wednesday, about 8,000 heavy native steers sold at 14½c for Rivers and 15c for Chicago. Heavy native cows were also traded and 10,000 sold at 14c and 14½c. About 14,000 light native cows, all production points involved, sold at 16c. Other selections were bid at steady levels.

SMALL PACKER AND COUNTRY HIDES: A few cars of 50@52-lb. average small packer hides sold higher during the week at 13c and 13½c, depending on shipping point. Some 58@60-lb. average hides sold at 12½c, with later offerings priced up to 13½c. A few cars of 40@42-lb. averages sold early in the week at 13c, with later buying interest for this average rejected at 13c. The country hide market was dull, with straight locker butchers quoted nominally at 10@10½c, for 50@52-lb. averages. Renderers were also quoted nominally at 9@9½c.

CALFSKINS AND KIPSKINS: Both selections were untraded up to midweek.

SHEEPSKINS: Shearlings were expected to sell considerably lower than previous sales during the month, as tanner interest had almost completely subsided. Trading of No. 1 shearlings were heard as low as 2.25. Dry pelts sold steady at 28c. A car of pickled skins traded, and lambs brought 16.50. Sheep were quoted nominally at 17.00@17.50.

CHICAGO HIDE QUOTATIONS

PACKER HIDES			
Week ended	Previous	Cor. Week	
Oct. 14, 1953	Week	1952	

Nat. steers... 14½@16 15 @16 16 @18n

Hvy. Texas
strs. 12n 12 13½n

Butt branded
strs. 12n 12 13½n

Col. strs. 11n 11 12½n

Ex. light Tex.
strs. 15½n 15½n 17½n

Brand'd cows. 13n 13 15

Hy. nat. cows. 14 @14½ 15 16

Lt. nat. cows. 16 15½@16 18

Nat. bulls ... 10½n 10½n 9½@10n

Branded bulls. 9½n 9½ 8½@9n

Calfskins, Nor.
10/15 45 45 50n

10/down 45 @50 45 45n

Kips, Nor. 15/25. 28½ 28½ 32½

Kips, Nor. 15/25. 26n 26n 30n

Brnd'd, 15/25

SMALL PACKER HIDES

STEERS AND COWS:

60 lbs. and
over 12@12½n 11 @11½n 13½@14n

50 lbs. 13@13½n 12½@13n 14½@15n

SMALL PACKER SKINS

Calfskins, under

15 lbs. 25n 25n 35n

Kips, 15/30 17@18n 17n 26n

Slunks, reg. 1.25n 1.00n 1.75

Slunks, hairless.. 25n 25n 50

SHEEPSKINS

Packer shearlings,

No. 1 2.25@2.50n 2.60n 2.25

Dry Pelts 28n 28n 30

Horsehides, untrmd. 9.00n 9.00n 7.00@7.25n

N.Y. HIDE FUTURES

MONDAY, OCT. 12, 1953

COLUMBUS DAY

No Trading in Hide Futures

TUESDAY, OCT. 13, 1953

	Open	High	Low	Close
Jan.	15.25b	15.75	15.40	15.75b- 80a
Apr.	14.90b	15.13	15.13	15.30b- 35a
July	14.70b	14.70	14.70	15.03b- 15a
Oct.	14.50b	14.68	14.67	14.80b- 90a
Jan.	14.30b	14.30	14.30	14.55b- 60a
Apr.	14.05b	14.05	14.05	14.30n

Sales 29 lots.

WEDNESDAY, OCT. 14, 1953

	Open	High	Low	Close
Jan.	15.70b	15.92	15.72	15.80b- 85a
Apr.	15.25b	15.50	15.30	15.38b- 45a
July	15.00b	15.25	15.20	15.25b- 28a
Oct.	14.80	15.05	15.05	15.05
Jan.	14.50b	14.80	14.78	14.80
Apr.	14.75b	14.75	14.75	14.55b

Sales 70 lots.

THURSDAY, OCT. 15, 1953

	Open	High	Low	Close
Jan.	15.85b	16.17	15.86	16.15
Apr.	15.35b	15.83	15.46	15.67b- 70a
July	15.25b	15.54	15.45	15.50b- 54a
Oct.	15.05b	15.37	15.21	15.35b- 40a
Jan.	14.80b	15.11	15.00	15.11
Apr.	14.55b	14.55	14.55	14.80b- 90a

Sales: 103 lots.

CHICAGO HIDE MOVEMENT

Receipts of hides at Chicago for the week ended Oct. 10, 1953, totaled 5,996,000 lbs.; previous week, 4,727,000 lbs.; same week 1952, 5,786,000 lbs.; 1953 to date, 192,827,000 lbs.; same period 1952, 181,931,000 lbs.

Shipments for the week ended Oct. 10, 1953, totaled 3,624,000 lbs.; previous week, 3,880,000 lbs.; corresponding week, 4,711,000 lbs.; this year to date, 146,586,000 lbs.; corresponding week, 1952, 159,470,000 lbs.

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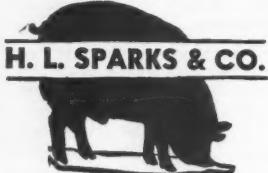
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WEEK'S CLOSING MARKETS

THURSDAY'S CLOSINGS Provisions

The live hog top at Chicago was \$22.60; average, \$22.00. Provision prices were quoted as follows: Under 12 pork loins, 53@54; 10/14 green skinned hams, 45@48½; Boston butts, 38; 16/down pork shoulders, 33; 3/down spare-ribs, 41; 8/12 fat backs, 15@18; regular pork trimmings, 23 nominal; 18/20 DS bellies, 35½ nominal; 4/6 green picnics, 30; and 8/up green picnics, 27 nominal.

P. S. loose lard was quoted at 16.75 bid and P. S. lard in tierces at 17.75 nominal.

Cottonseed Oil

Closing cottonseed oil futures in New York were quoted as follows: Oct. 16.30; Dec. 15.82; Jan. 15.75n; Mar. 15.63b-69a; May 15.46-52a; July 15.10b-25a; and Sept. 14.05b.

Sales: 69 lots.

PARITY PRICES COMPARED

Parity prices for livestock, feed and wool provided by the AAA of 1938 and amended in 1948 and 1949, effective on the following dates compared, as reported by the USDA:

Commodity	Base period Sept. 15	Effective parity prices	
and unit	1933	1953	1952
Hogs (per cwt.)	\$ 7.26	\$20.10	\$20.20
Beef cattle (cwt.)	7.54	20.00	21.00
Calves (per cwt.)	8.39	23.20	23.30
Lambs (per cwt.)	8.19	22.70	22.80
Wool (per lb.)	2.210	.582	.584
Corn (per bu.)	.642	1.78	1.78
Oats (per bu.)	.317	.878	.881
Barley (per bu.)	.488	1.33	1.36
Cottonseed (ton)	25.90	71.70	72.00
	75.00		

¹Adjusted base period prices 1910-14, based on 120-month average Jan., 1943-Dec., 1952, unless otherwise noted. ²500-month average, Aug., 1909-July 1914. ³Transitional parity, 80 per cent (85 per cent during 1952) of parity price computed under formula in use prior to January 1, 1950.

CHICAGO PROV. SHIPMENTS

Provision shipments by rail, in the week ended Oct. 10, with comparisons:

Week Oct. 10	Previous Week	Cor. Week 1952
Cured meats, pounds	16,416,000	20,895,000
Fresh meats, pounds	25,226,000	29,968,000
Lard, pounds	2,610,000	2,466,000
		3,799,000

PHILADELPHIA FRESH MEATS

Tuesday, October 13, 1953

WESTERN DRESSED

	Cwt.
Prime, 600/800	\$4.15@47.00
Choice, 500/700	43.50@47.00
Choice, 700/900	42.0@45.00
Good, 500/700	35.25@39.50
Commercial, 350/700	28.00@31.50

COW:

Commercial, all wts.	24.00@27.00
Utility, all wts.	21.00@24.00

VEAL (SKIN-OFF):

Choice, 80/110	38.00@40.00
Choice, 110/150	34.00@38.00
Good, 50/80	29.00@33.00
Good, 80/110	32.00@35.00
Good, 110/150	31.00@34.00
Commercial, all wts.	25.00@25.00
Utility, all wts.	22.00@25.00

CALF (SKIN-OFF):

Choice, 200/down	29.00@32.00
Good, 200/down	25.00@28.00

LAMB:

Prime, 45/down	40.00@42.00
Prime, 45/50	40.00@42.00
Prime, 50/60	40.00@42.00
Hip r'd, with flank	48.00@53.00
Hip r'd, with flank	48.00@52.00
Hip r'd, untrmd.	53.00@60.00
Hip r'd, untrmd.	50.00@57.00
Short loin, untrmd.	70.00@76.00
Short loin, untrmd.	65.00@70.00
Short loin, trmd.	95.00@110.00
Flank	15.00@17.00
Rib (7 bone)	56.00@60.00
Arm chuck	39.00@42.00
Brisket	32.00@35.00
Short plates	17.00@20.00

PORK CUTS—CHOICE LOINS:

(Bladeless included)	8-10	47.00@50.00
(Bladeless included)	10-12	47.01@50.00
(Bladeless included)	12-16	47.00@50.00

Butts, Boston style, 4-8

45.00@48.00

SPARERIBS, 3 lbs. down..... 47.50@49.00

LOCALLY DRESSED

STEER BEEF CUTS:	Prime	Choice
Hindquarters, 600/800	\$51.00@55.00	\$51.00@55.00
Hindquarters, 800/900	51.00@54.00	49.00@52.00
Rib., no flank	50.00@55.00	50.00@55.00
Hip r'd, with flank	48.00@53.00	48.00@52.00
Hip r'd, untrmd.	53.00@60.00	50.00@57.00
Short loin, untrmd.	70.00@76.00	65.00@70.00
Short loin, trmd.	95.00@110.00	85.00@94.00
Flank	15.00@17.00	15.00@17.00
Rib (7 bone)	56.00@60.00	55.00@58.00
Arm chuck	39.00@42.00	39.00@41.00
Brisket	32.00@35.00	32.00@35.00
Short plates	17.00@20.00	17.00@20.00

Wholesale Price Indexes

A Bureau of Labor Statistics report on wholesale price indexes for the week ended October 6 showed meats at 89.9 per cent of the 1947-49 average of 100 per cent for the period. This was a decline from the revised 92.6 the week before and 105.7 per cent for October, 1952. Fats and oils declined an average of 2.4 per cent; hogs, 8.1; hides, 5.9; while live steers rose 1.5 per cent.



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Leather Trade Sees Rise in Population as More Shoes

Not only did the meat industry observe the figures on the Department of Commerce "census clock" with satisfaction when the numerals denoting that the population of the country had reached 160,000,000, but so did the leather and hide industry.

Unlike the meat industry, which viewed it in terms of more mouths to eat meat, the leather industry noted the situation recently in terms of more feet to shoe with leather "clodhoppers." On the basis that the nation's population increases at the rate of about 7,200 each day, the leather and shoe industry analyzed it as meaning that one day's arrivals of new Americans will call for an additional 1,436,000 pairs of shoes in their lifetime.

Poultry Canning

Poultry canned or used in canning during August totaled 14,773,000 lbs. compared with 16,229,000 lbs. in August last year and the 1947-51 average for the month of 11,638,000 lbs. The quantity canned during the first eight months of this year totaled 124,717,000 lbs. compared with 118,672,000 lbs. during the same period last year—an increase of 5 per cent.

Poultry certified for canning and evisceration under federal inspection during August totaled 86,474,000 lbs. compared with 69,109,000 lbs. during August last year. Of the 86,474,000 lbs. 14,436,000 lbs. were for canning and 72,038,000 lbs. were eviscerated for sale. Of the quantity certified during August last year, 15,758,000 lbs. were for canning and 53,351,000 lbs. were eviscerated for sale.

Aug. Kill By Regions

United States federally inspected slaughter by regions, August, 1953.

(Thousands head)

Region	Cattle	Calves	Hogs	Lambs	Sheep
N. Atl. States	112	91	380	229	
S. Atl. States	36	39	164	..	
N. C. States—East	297	157	898	135	
N. C. States—N. W.	417	68	1,262	324	
N. C. States—S. W.	181	62	266	96	
S. Cent. States	188	139	209	84	
Mountain States	78	8	62	117	
Pacific States	186	38	146	171	
Total	1,494	602	3,306	1,158	
July, 1953	1,498	616	3,276	1,108	
Aug., 1952	1,135	426	3,592	1,020	

Other animals slaughtered under Federal inspection (number of head): August 1953: Horses 18,586, goats 9,420; August 1952: Horses 27,277, goats 2,595.

Data furnished by the Bureau of Animal Industry.

U.S. Lard Exports Down

Exports of lard and rendered pork fat from the United States at 120,017 short tons in the first six months of this year showed a drop of about 40 per cent from the 201,638 tons shipped in the same period last year, the Foreign Agricultural Service has reported. Limited dollar exchange available this year, coupled with increased European output, were said to be the big factors responsible for the decrease in exports to Europe.

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LIVESTOCK MARKETS

Weekly Review

September Corn Belt Hog Weight Lightest on Record

While live hogs have averaged most of this year sharply higher in price than last year, the September average weight of barrows and gilts at the eight corn belt markets combined, at 209 lbs. was the lightest on record, U. S. Department of Agriculture calculations indicate. This was a substantial decrease from the 216 lbs. for the same month, last year. By contrast, the heaviest average weight for barrows and gilts at the eight markets combined, in recent years, was 263 lbs. in 1945, when fat was a strategically important material in our war effort.

Compared with September, last year, Sioux City showed the sharpest rate of decrease in average weight—from 223 lbs. to 208 lbs. this year. At Chicago, the decline was from 223 lbs. to 211 lbs. and at Omaha, from 221 lbs. to 209 lbs. Declines in average weight were general throughout the other corn belt markets, although not as sharp as at the above centers.

Angus Breeders to Meet

The 70th annual meeting of the American Aberdeen-Angus Association is expected to attract more than 1,000 members to Chicago from throughout the United States, Canada and South America December 1 and 2, according to Frank Richards, secretary. By tradition, the association will hold its annual meeting during the International Livestock Exposition, which begins November 28.

ST. LOUIS HOGS IN SEPT.

Hog receipts, weights and range of prices at the National Stock Yards, E. St. Louis, Ill., were reported by H. L. Sparks & Co., as follows:

	September	
	1953	1952
Hogs received	1,718,800	200,498
Highest top price	\$25.75	\$21.15
Lowest top price	24.40	19.65
Average price	24.85	19.90
Average weight, lbs.	210	212

Aug. Cattle, Calves And Sheep Costs Below 1952

Packers operating under federal inspection during August bought most classes of livestock at prices lower than those paid in the corresponding month of 1952.

Average cost of cattle in August at \$17.59 was 68 per cent of 1952, calves at \$15.38 were 40 per cent under 1952; hogs at \$23.45 had 113 per cent of last year's value, and sheep and lambs averaging \$19.19 cost 17 per cent less than in the preceding year.

The 1,493,951 cattle, 602,148 calves, 3,395,943 hogs and 1,157,615 sheep and lambs slaughtered under federal inspection in August had dressed yields of:

	Aug., 1953	Aug., 1952
	1,000 lbs.	1,000 lbs.
Beef	773,654	608,671
Ven.	86,822	60,774
Pork (carcass wt.)	614,690	681,587
Lamb and mutton	49,401	43,880
Total	1,524,576	1,394,912
Pork, excl. lard	409,818	506,960
Lard production	105,800	127,696
Rendered pork fat	6,270	7,672

Average live weights in August were as follows:

	Aug., 1953	Aug., 1952
	lbs.	lbs.
All cattle	946.1	974.1
Steers ²	983.4	1,016.4
Heifers ²	813.9	821.4
Cows ²	931.0	946.6
Calves	250.0	258.2
Hogs	238.5	254.0
Sheep and lambs	91.1	92.9

Dressed yields per 100 lbs. live weight for the two months were as follows:

	Aug., 1953	Aug., 1952
	Per Cent	Per Cent
Cattle	54.9	55.3
Calves	55.8	55.4
Hogs ²	76.0	74.9
Sheep and lambs	47.1	46.6
Lard per 100 lbs.	13.1	14.0
Lard per animal	31.2	35.6

Average dressed weights compared:

	Aug., 1953	Aug., 1952
	lbs.	lbs.
Cattle	510.4	535.7
Calves	144.5	143.0
Hogs	181.3	190.2
Sheep and lambs	42.9	43.8

¹Includes rendered pork fat. ²Also included with cattle. ³Subtract 7.0 to obtain reported packer style average.

LIVESTOCK PRICES AT 11 CANADIAN MARKETS

Average price per cwt. paid for specific grades of steers, calves, hogs and lambs at 11 leading markets in Canada during the week ended October 3, compared with the same time 1952, were reported to THE NATIONAL PROVISIONER by the Canadian Department of Agriculture as follows:

STOCK-YARDS	GOOD STEERS		VEAL CALVES		HOGS*		LAMBS	
	Up to 1,000 lbs.	1,000 lbs.	Good and Choice	Grade B ¹	Dressed	Good Handyside	Dressed	Handyside
Toronto	\$19.58	\$21.70	\$22.55	\$20.91	\$34.10	\$27.60	\$21.04	\$23.20
Montreal	17.00	20.00	23.45	20.55	31.60	25.60	20.40	22.63
Winnipeg	16.60	20.40	22.50	20.50	31.35	24.08	18.00	20.14
Gatineau	17.91	20.93	17.47	21.02	32.0	23.80	17.50	20.28
Edmonton	17.65	20.15	18.50	22.50	32.85	24.00	17.75	19.50
Lethbridge	17.95	20.65	18.50	22.50	31.85	23.10	18.70	18.00
Pr. Albert	16.75	18.70	16.75	21.50	29.60	23.35	15.65	18.70
Moose Jaw	16.80	18.80	15.00	18.80	29.75	23.60	16.00	20.00
Saskatoon	17.00	21.50	19.75	23.50	29.75	23.60	16.00	19.10
Regina	15.85	19.50	17.00	22.70	29.00	23.60	16.45	19.55
Vancouver	19.00	20.50	19.25	20.75	34.25	26.00	19.75	20.00

*Dominion Government premiums not included.

Serving All

KENNETT-MURRAY
LIVESTOCK BUYING SERVICE

Important Markets!

LIVESTOCK PRICES AT LEADING MARKETS

Livestock prices at five western markets on Tuesday, October 13, were reported by the Production and Marketing Administration as follows:

St. L. N.S. Yds. Chicago Kansas City Omaha St. Paul

HOGS (Includes Bulk of Sales):

BARROWS & GILTS:

Choice:

120-140 lbs.	\$.18.25-20.00	None rec.	None rec.	None rec.	None rec.
140-160 lbs.	19.75-21.50	None rec.	None rec.	None rec.	None rec.
160-180 lbs.	21.25-23.00	\$20.50-22.00	20.00-21.75	19.75-21.35	19.50-21.50
180-200 lbs.	22.00-23.50	21.75-22.10	20.75-21.75	21.50-21.75	21.25-21.50
200-220 lbs.	22.10-22.50	22.00-22.40	21.50-21.75	21.50-22.00	20.00-21.00
220-240 lbs.	22.10-22.50	22.00-22.40	21.50-21.75	21.50-22.00	20.00-21.00
240-270 lbs.	21.75-22.50	22.00-22.40	None rec.	21.50-22.00	20.00-20.50
270-300 lbs.	None rec.	None rec.	None rec.	None rec.	19.50-20.00
300-330 lbs.	None rec.	None rec.	None rec.	None rec.	None rec.
330-360 lbs.	None rec.	None rec.	None rec.	None rec.	None rec.

Medium:

160-220 lbs.	None rec.	None rec.	None rec.	16.50-21.25	None rec.
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Small:

250-500 lbs.	None rec.	None rec.	None rec.	10.75-20.50	None rec.
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SLAUGHTER CATTLE & CALVES:

STEERS:

Prime:

700-900 lbs.	25.50-28.00	25.00-27.50	25.25-27.00	25.75-27.00	27.00-28.00
900-1100 lbs.	26.50-28.50	26.50-29.75	26.00-27.25	26.75-28.00	27.00-28.00
1100-1300 lbs.	26.50-28.50	27.50-29.75	26.00-27.25	26.75-28.00	27.00-28.00
1300-1500 lbs.	26.00-28.00	26.50-29.75	25.25-27.25	26.00-28.00	27.00-28.00

Choice:

700-900 lbs.	21.25-21.50	21.25 only	20.75-21.00	20.25-21.25	20.00-20.75
900-1100 lbs.	21.25-21.50	21.00-21.25	20.75-21.00	20.25-21.25	20.00-20.75
1100-1300 lbs.	20.50-21.50	21.00-21.25	20.50-21.00	20.25-21.25	19.25-20.50
1300-1500 lbs.	19.75-21.00	20.50-21.00	20.25-20.75	20.25-21.25	19.25-20.50
1500-1700 lbs.	19.25-20.50	19.75-20.50	19.75-20.50	19.50-20.50	None rec.

Medium:

250-500 lbs.	None rec.	None rec.	None rec.	10.75-20.50	None rec.
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HEIFERS:

Prime:

700-900 lbs.	25.50-28.00	25.00-27.50	25.25-27.00	25.75-27.00	27.00-28.00
900-1100 lbs.	26.50-28.50	26.50-29.75	26.00-27.25	26.75-28.00	27.00-28.00
1100-1300 lbs.	26.50-28.50	27.50-29.75	26.00-27.25	26.75-28.00	27.00-28.00
1300-1500 lbs.	26.00-28.00	26.50-29.75	25.25-27.25	26.00-28.00	27.00-28.00

Choice:

700-900 lbs.	21.50-26.50	22.00-26.50	21.00-26.00	21.75-26.25	23.00-27.00
900-1100 lbs.	22.00-26.50	23.25-27.50	21.50-26.00	21.75-26.75	23.00-27.00
1100-1300 lbs.	22.00-26.50	23.75-27.50	21.50-26.00	21.75-26.75	23.00-27.00
1300-1500 lbs.	22.00-26.50	24.00-27.50	21.50-26.00	21.75-26.75	23.50-27.00

Good:

700-900 lbs.	17.50-22.00	17.75-23.25	16.00-21.50	18.00-21.75	17.50-23.50
900-1100 lbs.	18.00-22.00	18.25-23.75	16.50-21.50	18.00-21.75	18.00-23.50
1100-1300 lbs.	18.00-22.00	18.75-24.00	16.50-21.50	18.00-21.75	18.00-23.50

Commercial, all wts.	13.00-18.00	13.75-18.75	12.00-16.50	13.50-18.00	12.50-18.00
Utility, all wts.	10.50-13.00	12.00-13.75	9.00-12.00	10.00-13.50	10.50-12.50

CALVES:

Commercial:

Commercial, all wts.	10.50-11.50	11.25-13.00	10.50-12.50	10.75-12.75	11.00-12.50
Utility, all wts.	9.00-10.50	9.25-11.50	8.50-10.50	9.00-10.75	9.00-11.00

Canner & cutter, 6.50-9.00	7.25-9.75	6.50-8.50	7.00-9.00	6.50-9.00
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BULLS (Yrs. Excel.) All Weights:

Good	None rec.	10.00-13.50	None rec.	10.00-11.50	11.00-12.00
Commercial	11.00-12.00	13.25-14.00	10.50-11.00	11.50-13.00	11.00-12.00
Utility	9.50-11.00	11.00-13.25	8.50-10.75	10.00-11.50	11.00-12.50
Cutter	7.00-9.50	9.00-11.00	6.50-8.50	9.00-10.00	10.00-12.00

VEALERS:

Choice & prime	None rec.	10.00-13.50	None rec.	10.00-11.50	11.00-12.00
Com'l & good	11.00-17.00	15.00-21.00	9.00-16.00	13.00-16.00	13.00-19.00
Utility	9.00-13.00	11.00-14.00	8.00-12.00	10.50-13.50	12.00-16.00
Cutter	7.00-9.50	9.00-11.00	6.50-8.50	9.00-10.00	10.00-12.00

CALVES:

Choice & prime	13.00-18.00	14.00-20.00	12.00-15.00	13.50-16.00	15.00-18.00
Com'l & good	9.00-13.00	11.00-14.00	8.00-12.00	10.50-13.50	12.00-16.00

SHEEP & LAMBS:

SPRING LAMBS:					
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Choice & prime	18.00-19.50	19.50-21.00	18.75-19.75	19.75-20.00	19.00-19.50
Good & choice	16.50-18.00	18.00-19.50	17.00-18.75	17.00-19.75	18.00-18.75

EWES (Shorn):					
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Good & choice	3.50-5.00	None rec.	4.50-5.50	4.75-5.25	5.00-6.00
Cull & utility	3.00-4.00	None rec.	3.00-4.50	3.50-4.75	3.00-4.75

SLAUGHTER REPORTS

Special reports to THE NATIONAL PROVISIONER, showing the number of livestock slaughtered at 13 centers.

CATTLE

Week ended Oct. 10.

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PACKERS' PURCHASES

Purchases of livestock by packers at principal centers for the week ending Saturday, October 10, 1953, as reported to The National Provisioner:

CHICAGO

Armour, 3,904 hogs; Wilson, 8,150 hogs; Agar, 11,024 hogs; Spilman, 5,112 hogs; and Others, 16,549 hogs.

Total: 27,516 cattle; 1,457 calves; 44,938 hogs; and 9,862 sheep.

KANSAS CITY

Armour .. 5,833 2,669 2,01 2,786
Swift .. 5,451 2,002 2,981 4,819
Wilson .. 1,630 .. 2,749 ..
Butchers .. 1,059 41 1,032 ..
Others .. 5,108 .. 2,360 2,985

Totals .. 25,811 4,402 11,049 10,500

OMAHA

	Cattle	Calves	Hogs	Sheep
Armour ..	7,816	5,972	5,005	
Cudahy ..	4,476	5,362	2,770	
Swift ..	7,423	5,946	4,457	
Wilson ..	3,915	4,011	536	
Cornhusker ..	595			
O'Neill ..	151			
Neb. Beef ..	868			
Eagle ..	60			
Gr. Omaha ..	643			
Hoffman ..	80			
Rothschild ..	478			
Roth ..	1,249			
Kingan ..	1,418			
Merchants ..	117			
Midwest ..	112			
Omaha ..	505			
Union ..	574			
Others ..	8,667			
Totals ..	30,649	20,678	12,858	

E. ST. LOUIS

	Cattle	Calves	Hogs	Sheep
Armour ..	3,019	2,478	5,705	4,629
Swift ..	5,807	2,908	5,733	3,409
Hunter ..	1,127	1,000	2,318	...
Hill ..	...	1,787	...	...
Krey ..	...	1,208	...	...
Laclede ..	...	682	...	...
Luer ..	...	2,152	...	...
Totals ..	10,533	5,386	26,045	8,038

MILWAUKEE

	Cattle	Calves	Hogs	Sheep
Packers ..	2,173	6,880	6,082	1,518
Others ..	2,063	1,668	406	199
Totals ..	4,228	8,548	7,088	1,717

SIOUX CITY

	Cattle	Calves	Hogs	Sheep
Armour ..	4,576	24	7,130	2,028
Cudahy ..	4,451	2	8,040	2,152
Swift ..	3,106	1	5,026	1,504
Butchers ..	437	2	2,028	...
Others ..	8,770	74	5,926	396
Totals ..	21,049	101	26,122	6,170

WICHITA

	Cattle	Calves	Hogs	Sheep
Cudahy ..	2,801	962	1,395	1,148
Kansas ..	375	...	...	...
Dunn ..	112	...	...	...
Dold ..	84	...	479	...
Sunflower ..	...	54	...	...
Pioneer ..	819	...	...	...
Excel ..	2,857	...	274	223
Totals ..	6,665	962	2,202	1,371

OKLAHOMA CITY

	Cattle	Calves	Hogs	Sheep
Armour ..	4,228	548	708	1,010
Wilson ..	3,761	818	613	729
Butchers ..	225	...	1,012	2
Totals ..	8,214	1,366	2,335	1,741

*Do not include 1,446 cattle, 1,275 calves, 8,355 hogs and 2,705 sheep direct to packers.

LOS ANGELES

	Cattle	Calves	Hogs	Sheep
Armour ..	428	76	314	...
Cudahy ..	683	...	...	...
Swift ..	95	...	...	...
Wilson ..	582	...	...	...
Atlas ..	766	...	...	...
United ..	811	2	270	...
Ideal ..	1,052	...	...	...
Machlin ..	301	63	...	...
Gr. West ..	644	...	...	...
Commercial ..	354	...	...	...
Clougherty ..	113	...	386	...
Coast ..	370	...	...	...
Others ..	3,284	1,038	1,022	...
Totals ..	8,573	1,171	2,001	...

CINCINNATI

	Cattle	Calves	Hogs	Sheep
Gall ..	...	...	...	483
Kahn's ..	...	...	...	...
Meyer ..	132	44	...	26
Schlachter ..	...	...	...	...
Northside ..	...	...	...	...
Others ..	5,079	1,007	14,042	1,717
Totals ..	5,211	1,051	14,042	2,226

ST. PAUL

	Cattle	Calves	Hogs	Sheep
Armour ..	6,547	3,651	13,553	5,997
Bartsch ..	1,151	...	...	...
Cudahy ..	1,161	189	...	1,018
Rifkin ..	927	43	...	...
Superior ..	1,388	...	...	...
Swift ..	8,887	5,200	29,810	5,763
Others ..	2,404	2,005	4,975	1,673
Totals ..	20,465	11,488	48,344	14,381

FORT WORTH

	Cattle	Calves	Hogs	Sheep
Armour ..	3,215	3,745	415	1,421
Swift ..	3,327	3,375	610	6,543
Bl. Bonnet ..	346	15	135	...
City ..	477	...	33	...
Rosenthal ..	74	7	...	...
Totals ..	7,430	7,142	1,103	7,964

TOTAL PACKER PURCHASES

	Week Ended	Prev. Week	Cor. Week
Cattle ..	176,973	183,019	154,017
Hogs ..	215,637	232,933	286,939
Sheep ..	76,918	84,295	97,852

Week ending Oct. 10, 1953.

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Cor. Week

Week ending Oct. 10, 1953.

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Week ending Oct. 10, 1953.

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